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ABSTRACT

This report details the second stage of a study of the perceived relative importance of research and undergraduate teaching at American colleges and universities. Phase II of the study was conducted from 1992 to 1994; this phase extended the survey from 49 research and doctoral institutions to 187 four-year institutions. Two key items reported in this phase are (1) where the subjects perceive their institution is going and (2) where they think it should go in regard to teaching and research. Comparisons of Phase I and Phase II data from research and doctoral institutions indicate a shift from a strong research emphasis to a balance between research and undergraduate teaching. Phase II responses from research and doctoral institutions suggest support for the shift toward a balance between research and undergraduate teaching perceived by respondents. This study's respondents reported that their institution is shifting from a moderate research emphasis to a strong teaching emphasis; the direction respondents reported their institution should go shifted from a balanced emphasis to a strong teaching emphasis. Comparisons of Phase I and Phase II responses from those in various academic areas indicated a significant difference in perceptions: Phase II respondents perceived less emphasis on research at their institutions than did those in Phase I. (PW)

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A National Study On the Relative Importance of Research and Undergraduate Teaching At Colleges and Universities

Executive Summary

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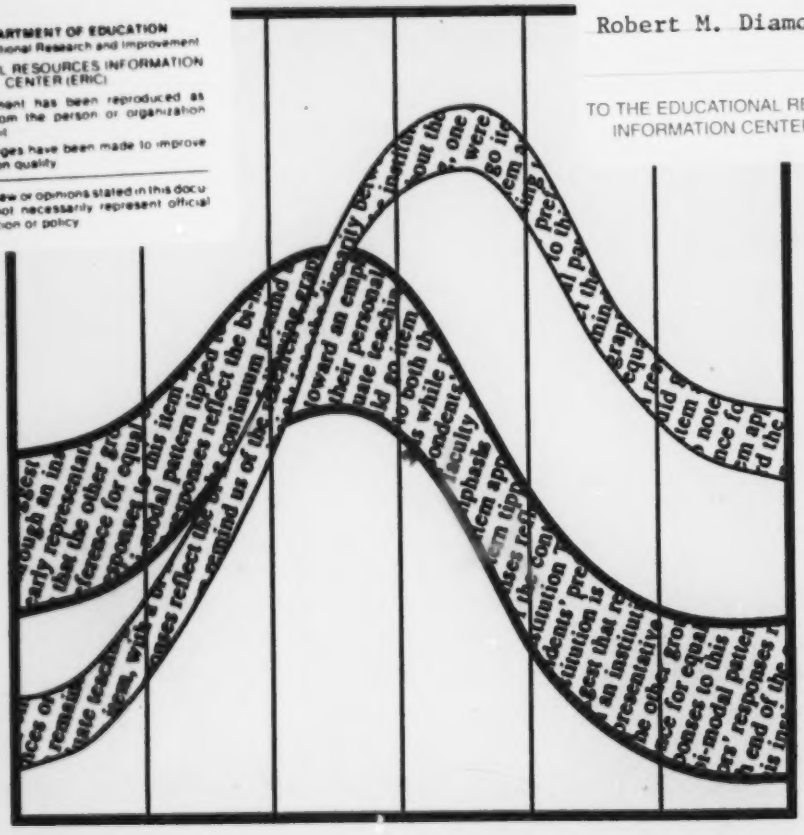

February 1996

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A National Study on the Relative Importance of Research and Undergraduate Teaching at Colleges and Universities

Executive Summary

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February 1996
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Copies of the full technical report may be purchased for $10 (including postage and handling) from the Syracuse University Center for Instructional Development, 111 Waverly Ave., Suite 220, Syracuse New York 13244.

PART I

INTRODUCTION

BACKGROUND

The Lilly Endowment has since 1991 provided financial support for a national study of the perceived relative importance of research and undergraduate teaching at colleges and universities. Study subjects included faculty, unit heads (that is, those responsible for academic departments or programs), academic deans, and other academic administrators. The results of the first phase of this study which took place from 1990-1991 were reported in 1992, based on over 23,000 responses from 49 Research and Doctoral institutions (Gray, Froh, Diamond, 1992). This report details the second phase of the study which extended the survey to an additional 187 institutions in all Carnegie classification categories. Phase II of the study was conducted from fall 1992 to spring 1994 and was supported by the Pew Charitable Trusts as well as the Lilly Endowment.

A close look at the definitions of research and teaching and the nature of the relative emphasis desired by respondents in different contexts provides a picture of the rich tapestry of higher education in the 1990s. In addition, this picture illustrates some of the fundamental tensions felt by those in higher education, as well as some of the solutions to the problems facing higher education as it seeks to meet the demands of the twenty-first century.

Gaining a better understanding of the extent to which the higher education community values research and teaching was a major goal of the study reported here. The nation-wide quantitative profile and the extensive qualitative data that have resulted from this study have provided a backdrop for national and local discussions about the relative importance of research and undergraduate teaching, the redefinition of scholarship, and how to achieve an appropriate balance of rewards for the various scholarly activities in which faculty engage.

In particular, the Phase I study results provided participating research and doctoral institutions with information about the perceptions that existed on their campuses, as well as a composite national picture useful for comparative

purposes. A number of follow-up meetings were held on the campuses that participated in the first phase of this study to disseminate the results and to discuss their implications. Phase I study results have been reported at national meetings of scholarly and academic associations and have been disseminated through the publications and programs of the American Association for Higher Education.

PREVIOUS RESEARCH AT SYRACUSE UNIVERSITY

In the spring of 1989, Syracuse University received a twelve-month grant from the Sears Roebuck Foundation for a project entitled *Affecting Priorities at a Research Institution: Focus on Teaching*. The national study reported here builds on the work of this initial project, the Sears Project.

The goal of the Sears Project was to enhance the perceived importance of undergraduate teaching at Syracuse University. The project had three purposes related to this goal; first, to help deans and department chairs gain a better understanding of how they influence the attitudes and priorities of faculty regarding teaching; second, to assist these administrators in identifying the various activities and resources they could use to influence attitudes and priorities; and third, to indicate ways in which central administrators could support deans and chairs in these efforts.

As the first step, a set of surveys was developed and administered to faculty, department chairs, and deans. These surveys focused on current perceptions of the relative importance of research and undergraduate teaching at Syracuse University, the direction respondents perceived the institution was going, and the direction that they perceived Syracuse should go.

The initial Syracuse University data were used as the basis for discussions of the importance of undergraduate teaching among administrators, deans, unit heads, and faculty. Campus-wide changes in faculty reward criteria and processes resulted from these conversations.

SURVEY FORM

Both phases of the national study utilized modified versions of the survey instrument originally developed at Syracuse as part of the Sears Project. In adapting the Syracuse survey for use in the National Study, a core set of items was customized through slight modifications to make them appropriate for individual campuses and to the different groups responding, that is, faculty, unit heads (those responsible for academic departments or programs), academic deans, and administrators on these campuses. While items were added for some individual campuses, the core items remained the same.

A prototype version of the faculty survey form is shown in Figure 1. The first part of the survey consists of eight items. These items asked respondents to indicate the relative importance of research and undergraduate teaching to them personally and to others on their campus. A teaching–research continuum is associated with each item. On this continuum, a 0 indicates equal importance, that is, an equal balance between research and undergraduate teaching. The four numbers on the right side of the continuum were provided so that respondents could indicate that, relatively speaking, research is more important. Similarly, those numbers on the left side could be chosen to indicate that teaching is more important. By choosing numbers other than 0, respondents indicated *relative* importance. For example, by choosing a number on the teaching side of the continuum, respondents were not indicating that research was unimportant, but that the balance was perceived as being tipped toward teaching.

The second set of items used the same continuum to solicit respondents' perceptions of the direction that their institution *is going*, the direction that it *should go*, and, where appropriate, the directions that respondents personally (faculty), their unit (unit heads), or their school or college (deans) *should go*, given present strengths and interests.

Next on the prototype survey form was an open-ended item that asked respondents to comment on their responses to the scaled items. These comments provided insight into personal points of view and the perceptions of the local campus community that prompted individual responses.

The last set of items included demographic variables for respondents. These variables included academic area, gender, and number of years at the institution, faculty rank, and percentage of time faculty devoted to teaching, research, and other activities. The demographic profile of respondents for the Phase II study is reported in Part II of this report.

SURVEY ADMINISTRATION

Surveys were administered on participating campuses with the assistance of a campus liaison who consulted with the assistant project director about modifications needed to make the survey forms appropriate for the particular campus (for example, titles of academic offices or divisions). Most campuses chose to conduct a blanket survey of the academic community. The participating institutions were responsible for handling the distribution and collection of the surveys. Most institutions elected to have respondents return the surveys to a central office on campus, although some chose to have respondents return them directly for processing.

Figure 1

SAMPLE FACULTY SURVEY ON RESEARCH AND UNDERGRADUATE TEACHING

Even if you do not teach undergraduates, please circle the number on each scale below that best represents your perception of the relative importance of research and undergraduate teaching. For example, a 4 would indicate that one is of utmost importance to the exclusion of the other, and a 0 would indicate that they are of equal importance. All responses will be confidential. Only group data will be reported.

A. In relation to each other, how do you perceive the importance of research and undergraduate teaching to:

a. you personally

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

b. the majority of other faculty in your department

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

c. your academic unit head (e.g., department chair)

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

d. your dean

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

e. the Office of Academic Affairs

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

B. Please circle the number on each scale below that best represents your perception of:

a. the direction that you think your university is going

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

b. the direction that you think your university should go

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

c. the direction that you think you should go based on your interests

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

C. Please comment on the similarities and differences in the above ratings. (Use back of form if necessary.)

D. Demographics

a. department and school/college _____

b. faculty rank _____ c. no. of years at institution _____ d. gender (circle) M F

e. % of time devoted to: (should add to 100%)

teaching and advising undergraduates _____ teaching and advising graduate students _____

research activities _____ service and administration _____

PART II

DEMOGRAPHIC DATA

The results presented and discussed in this summary and in the technical report on which it is based build on the data collected in Phase I of this national study. The first phase took place from 1990 to 1992 and surveyed over 46,000 faculty, unit heads, academic deans, and other academic administrators at 49 United States Research and Doctoral institutions, as categorized by the Carnegie Foundation classification system (Appendix B). There were 23,302 usable responses to this survey, the results of which was reported in Gray, Froh, and Diamond (March 1992).

Phase II of this study took place from 1992 to 1994. This phase involved surveying over 60,000 full-time faculty, unit heads, academic deans, and other academic administrators at 196 institutions in the United States and Canada. The data set on which this report is based comes from 187 four year US institutions across all eight Carnegie classification categories. There were 27,884 usable responses to the surveys distributed in Phase II.

Over 100,000 people were surveyed in Phases I and II of this national study. The over 51,000 US respondents from both phases equal approximately 10% of all full-time faculty, unit heads, academic deans, and other academic administrators at four year institutions in the United States.

Many of the analyses in this report are based on the Carnegie classification categories (1994). These categories were used because they provide a standard way of grouping higher educational institutions in the United States, they have an inherent logic to them, and they are recognized by those in institutions as a reasonable way to describe themselves. A list of participating institutions will be found in Appendix A.

The results of this study enrich our understanding of the Carnegie classification categories by providing information about similarities and differences in perceptions of the relative importance of research and undergraduate teaching on the part of faculty, units heads, deans, and other administrators both within and across categories.

NATIONAL AND SAMPLE POPULATIONS

Forty-nine institutions in the Research and Doctoral categories participated in Phase I of the study, and 187 in all Carnegie classification categories participated in Phase II. Table I details the distribution of institutions across the Carnegie continuum. Table II illustrates that the Phase II study sample approximated the national distribution of institutions across the Carnegie categories. Table III illustrates that the study sample included slightly more private institutions than there are nationally.

Table I

Phase I and Phase II Institutions By Carnegie Classification Category

	Phase I	Phase II
Research I	21	12
Research II	6	7
Doctoral I	13	5
Doctoral II	9	8
Master's I	—	57
Master's II	—	10
Baccalaureate I	—	47
Baccalaureate II	—	41
Total	**49**	**187**

Table II

Phase II National and Sample Populations By Carnegie Classification Category

	National Institutions		Sample Institutions			Sample Respondents	
	Total N	% of Total	Total N	% of National	% of Total	Total N	% of Total
Research I	88	6.3%	12	13.6%	6.4%	6,890	24.7%
Research II	37	2.6%	7	18.9%	3.7%	2,624	9.4%
Doctoral I	51	3.6%	5	9.8%	2.7%	2,018	7.2%
Doctoral II	60	4.3%	8	13.3%	4.3%	1,542	5.5%
Master's I	435	31.0%	57	13.1%	30.5%	8,304	29.8%
Master's II	94	6.7%	10	10.6%	5.3%	638	2.3%
Baccalaureate I	166	11.8%	47	28.3%	25.1%	3,589	12.9%
Baccalaureate II	471	33.6%	41	8.7%	21.9%	2,279	8.2%
Total	**1,402**	**100.0%**	**187**	**13.3%**	**100.0%**	**27,884**	**100.0%**

Table III

Phase II Populations By Public/Private Status

	National Institutions Total N	National Institutions % of Total	Sample Institutions Total N	Sample Institutions % of National	Sample Respondents Total N	Sample Respondents % of Total
Private	890	63.5%	134	71.7%	11,329	40.6%
Public	512	36.5%	53	28.3%	16,555	59.4%
Total	**1,402**	**100.0%**	**187**	**100.0%**	**27,884**	**100.0%**

Return Rates

Overall, the Phase II return rate was 45% (Table IV), although it was as high as 62% for those in Baccalaureate II institutions. Among those in different roles, the return rates for only two groups dropped below 35%, Research I administrators (18%) and Doctoral II administrators (18%).

Table IV

Phase II Return Rates By Role and Carnegie Classification

	Sent N	Returned N	Return Rate %
Faculty	54,486	23,872	43.8%
Unit Heads	4,231	2,350	55.5%
Deans	1,273	680	53.5%
Administrators	2,318	982	42.4%
Total	**62,308**	**27,884**	**44.8%**

Respondents' Roles and Gender

Nearly three-quarters of the Phase II study respondents were male. The discrepancy in the percentage of female to male respondents was greatest in the Research categories and lowest at Baccalaureate institutions. Fewer female respondents reported holding appointments as full professors, department heads, deans, and administrators. Baccalaureate II institutions reflected the most equal representation of males and females in the administrative categories (47% female and 53% male).

NUMBER OF YEARS AT INSTITUTION

Nearly 50% of all faculty respondents had been at their institutions for 11 or more years (Table V). Eleven percent more female faculty than male faculty were distributed in the first two categories ("1 to 3 years" and "4 to 6 years"). In five of the eight Carnegie classification categories there was greater than a 15 percentage point difference between the number of female and male respondents who had been at their institutions for more than 20 years (the last response category). The "youngest" group was Master's II respondents, 53% of whom had been at their institutions from one to six years. Table V illustrates the distribution of respondents time at their institution by role and gender.

Table V

Phase II Population
Years at the Institution—By Gender

	From 1 to 3 years		From 4 to 6 years		From 7 to 10 years		From 11 to 20 years		More than 20 years	
	N*	%	N	%	N	%	N	%	N	%
Faculty										
female	1,798	27.9%	274	24.5%	175	15.6%	264	23.6%	90	8.0%
male	2,645	17.3%	2,476	16.2%	2,008	13.1%	3,908	25.6%	4,248	27.8%
Total	**1,541**	**20.3%**	**4,065**	**18.2%**	**3,202**	**14.3%**	**5,482**	**24.6%**	**5,031**	**22.5%**
Unit Heads										
female	65	13.2%	64	13.0%	93	18.9%	181	36.8%	89	18.1%
male	138	8.4%	208	12.6%	207	12.6%	521	31.6%	575	34.9%
Total	**3,238**	**10.8%**	**280**	**12.7%**	**303**	**13.7%**	**713**	**32.2%**	**677**	**30.6%**
Deans										
female	37	21.8%	41	24.1%	24	14.1%	47	27.6%	21	12.4%
male	58	12.9%	75	16.6%	55	12.22%	117	25.9%	146	32.4%
Total	**95**	**14.9%**	**118**	**18.5%**	**80**	**12.6%**	**173**	**27.2%**	**171**	**26.8%**
Administrators										
female	66	20.9%	55	17.4%	68	21.5%	92	29.1%	35	11.1%
male	95	15.4%	92	15.0%	98	15.9%	177	28.8%	153	24.9%
Total	**165**	**17.5%**	**147**	**15.5%**	**168**	**17.8%**	**272**	**28.8%**	**191**	**20.3%**

*The number of males and females may not total the number of respondents in a given category since not all respondents indicated their gender.

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FACULTY RANK

Slightly more respondents (38.9%) reported a rank of full professor than assistant professor (29.1%) or associate professor (32%). A higher proportion of male faculty respondents reported a rank of full professor (46% male, 19.8% female). Overall, 45% of female faculty respondents were at the assistant professor rank (with up to 55% in some Carnegie classification categories). With more females at the assistant professor level and approximately equal percentages of female and male associate professors, it is possible that discrepancies in gender among full professors will be lessened over time, assuming that promotion and tenure decisions are fair and equitable.

SUMMARY

In summary, many of the demographic data vary by Carnegie classification category and suggest that a higher percentage of females than males are earlier in their teaching careers and hold appointments in lower faculty ranks. Half of the faculty respondents reported at least eleven years at their institutions, and slightly more were full professors (38.9%) than either assistant or associate. It will be important to keep these distributions in mind when interpreting the findings of this study on the perceived relative importance of research and undergraduate teaching.

PART III

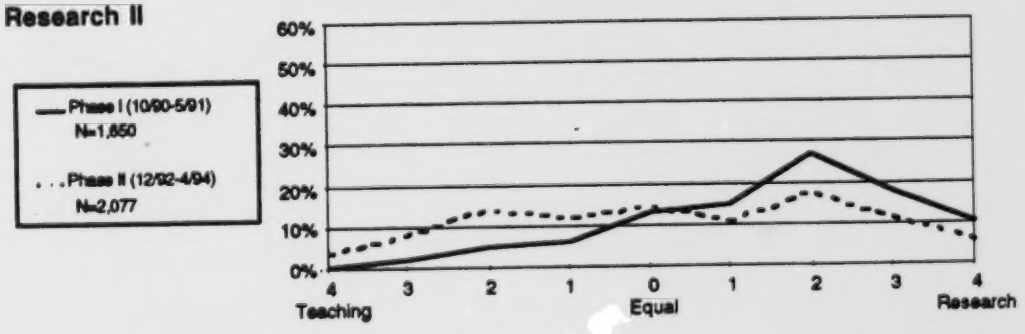
STUDY FINDINGS

COMPARISONS OF PHASE I AND PHASE II RESULTS

This section of the summary report highlights findings and observations. Since only institutions in the four research and doctoral Carnegie classification categories were surveyed in Phase I, comparisons were only possible among respondents in those categories.

- Comparisons of Phase I (1990-92) and Phase II (1992-94) data from research and doctoral institutions indicated that a shift is underway at those types of institutions away from a strong research emphasis and toward one that recognizes the importance of a balance between teaching and research. Differences in faculty *is going* item means were statistically significantly different in all four Carnegie classification categories that were surveyed in both phases. In all instances Phase II respondents reported their institution less research-oriented than did Phase I respondents. These differences were most apparent at Research I and II and Doctoral I institutions. As an example, Figure 1 displays the frequency of faculty responses at Research II institutions across the two study phases.

Figure 1
The Direction the Institution *Is Going*
Phase I vs Phase II
Faculty by Carnegie Classification

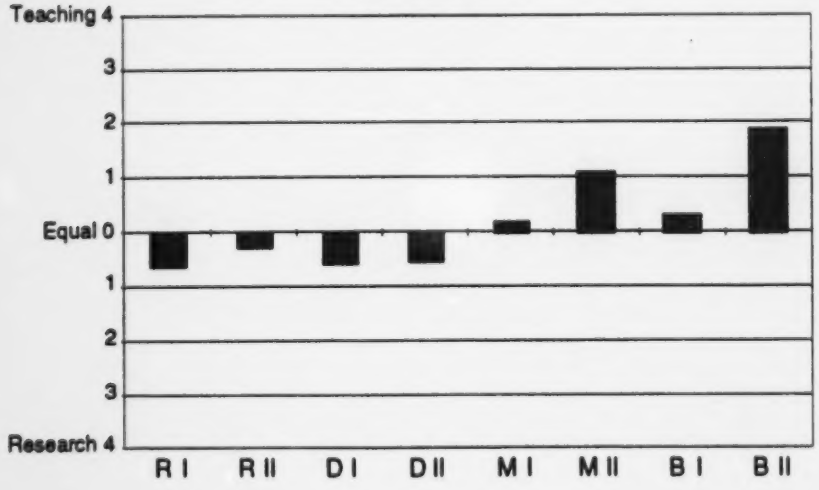


- As in Phase I, respondents in all roles at research and doctoral universities strongly supported a balance between research and undergraduate teaching, as measured by the *should go* item. The majority of respondent groups indicated that this balance had yet to be achieved, which is reflected in the differences between responses to the *is going* and *should go* items.
- Phase II data reflected more consistency in perceptions among faculty, academic unit heads, deans, and administrators than characterized the Phase I results where perceptions of those in various roles differed widely.

DIFFERENCES ACROSS CARNEGIE CATEGORIES

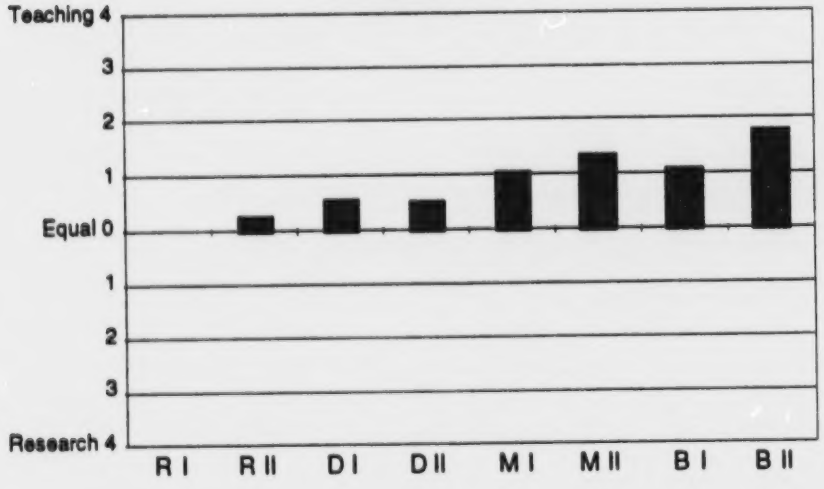
- The direction Phase II respondents reported their institution *is going* changed from a somewhat greater relative importance of research to a greater relative importance of teaching across Carnegie classification categories from Research I to Baccalaureate II institutions. As displayed in Figure 2, the most teaching-focused institutions were in the Master's II and Baccalaureate II categories. Throughout our findings, similarities between Master's II and Baccalaureate II and Master's I and Baccalaureate I institutions were consistent.

Figure 2
The Direction the Institution *Is Going*
Faculty



- The direction Phase II respondents indicated their institution *should go* became more strongly teaching-focused across Carnegie classifications from Research I to Baccalaureate II institutions, as shown in Figure 3. Across the different respondent groups, average responses to this item were strikingly similar.

Figure 3
The Direction the Institution *Should Go*
Faculty

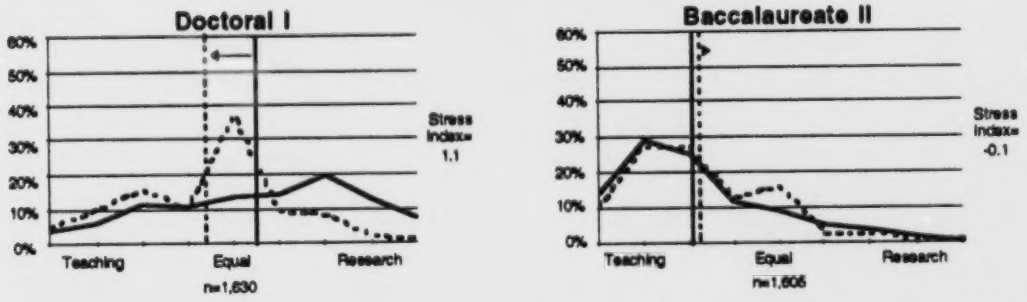


- Although item means suggest that there was strong convergence of faculty perceptions, there was considerable variability in responses to the *is going* item within some institutional groupings. For example, at Master's I institutions over 30 percent of faculty reported their institution *is going* in a research direction, while over 40 percent reported the direction to be on the teaching side of the continuum.
- Bi-modal patterns of faculty response on the *should go* item in some Carnegie categories, most notably Master's I, Master's II and Baccalaureate I institutions, suggested two groups of respondents—one favoring a balance between research and undergraduate teaching and the other favoring a teaching emphasis.

- The most consistent and complementary perceptions vis à vis the relative importance of research and undergraduate teaching were at Baccalaureate II and Master's II institutions where faculty, unit heads, deans, and administrators agreed about the teaching emphasis at their institutions.
- Stress, the difference between perceived and preferred institutional direction, was most pronounced in responses from Doctoral I (Figure 4) and Doctoral II faculty.

Figure 4

Direction of the Institution and Stress Faculty by Carnegie Classification



- The lowest stress was found in faculty at Master's II and Baccalaureate II institutions (Figure 4). The stress index for administrators was lowest at Baccalaureate II institutions.
- While there was general convergence of perceptions within Carnegie classifications, there were individual institutions within each grouping that had quite different distribution of responses. For example, some Baccalaureate I institutions' response patterns were more like Doctoral or Research institutions' than they were like others in their own category.
- At a small number of Baccalaureate I and II institutions, a subset of faculty perceived that their institution should support research more strongly.
- Respondents' self-perceptions and the perceptions others had about them did not always match. Differences in perceptions were most striking at Research universities and least apparent at Baccalaureate colleges. This difference was most pronounced, as it was in Phase I of the study, at the administrative level. Administrators' estimation of others' perceptions vis

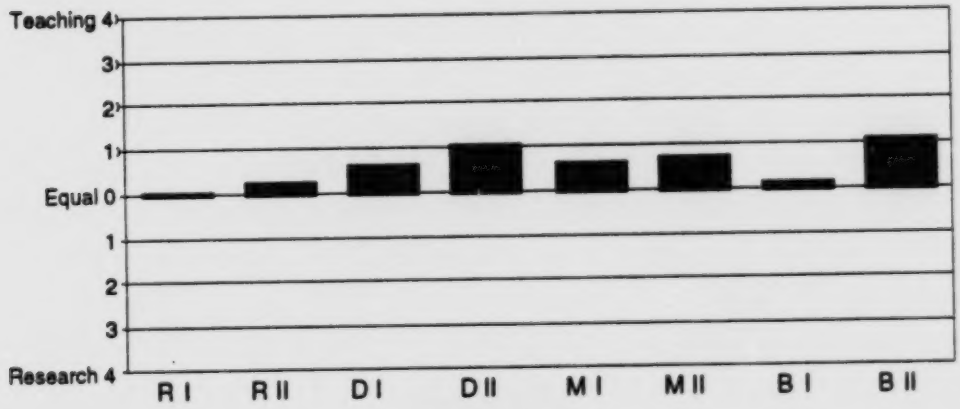
à vis the relative importance of research and undergraduate teaching were not consistent with those groups' actual preferences, and administrators themselves were often misperceived.

- Academic discipline affected respondents' perceptions of the relative importance of research and undergraduate teaching. The differences among the disciplines were most pronounced at Research and Doctoral institutions and least striking at Master's and Baccalaureate institutions.
- In some academic disciplines such as Art, the relative importance of research and undergraduate teaching, on average, remained fairly constant across Carnegie classifications. In others, such as Chemistry, a shift in personal priorities occurred along the classification continuum (Figure 5).

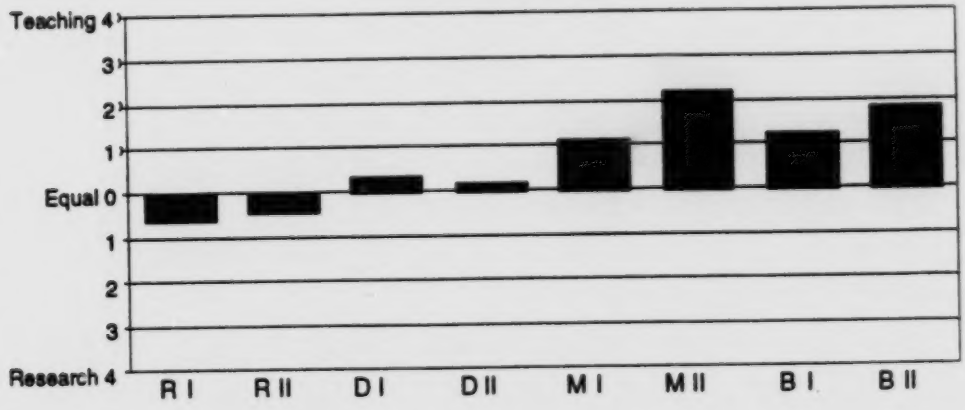
Figure 5

Faculty *You Personally* Means by Carnegie Classification

Art



Chemistry



PART IV

WHAT OPEN-ENDED RESPONSES TELL US

Responses to open-ended items provided insight into quantitative data, helping to explain phenomena or provide information that could not be inferred from scaled responses. Roughly 38% of faculty responded to the open-ended prompt for Item C: *Please comment on the similarities and differences in the above ratings.* Many of those comments were long, carefully crafted responses reflecting a strong commitment to research and undergraduate teaching. The comments also communicated deep frustration around the tensions in higher education as respondents experience them within their institutions. While respondents often mentioned particular campus issues and concerns, in reading faculty comments across institutions and institution types, a number of common themes emerged.

THE INTERRELATIONSHIP OF TEACHING AND RESEARCH

The tension faculty feel around the relative importance of research and undergraduate teaching resonated in their comments. One common theme was the interrelationship of teaching and research. Many respondents made the case that their research and teaching roles and activities cannot be separated—that they co-exist so as to make them "scholars." Faculty comments reflected a concern that both teaching and research need to be supported on their campuses. Faculty suggested that their institutions could emphasize both vital activities by drawing on the differential strengths of faculty. A sizable number of faculty comments suggested that higher education is not addressing the need for flexibility in faculty roles and rewards so as to support faculty as teachers and researchers.

> *I do not think that teaching and research can be separated. Both need to be supported—and valued.*
>
> *The university, overall, should put equal emphasis on teaching and research. Not everyone needs to be an excellent teacher and a strong*

researcher. The institution should give each faculty member the opportunity to bring out his/her talents in teaching, research, or both.

DEFINITIONS OF FACULTY WORK

Respondents reminded us that definitions of faculty work vary across institution type. The parameters for "research" range from traditional scholarship to work that inspires and enriches teaching, manifesting itself in reading and attending conferences and "keeping up" in the discipline. Considerations of applied work and professional service as "teaching" as well as questions about where "service" fits around the teaching—research continuum were articulated in faculty comments. Respondents on some campuses claimed that a significant amount of their time was allocated to "administrative" work. Clearly faculty feel pressured to "do it all."

Our department is labor-intensive, weighted heavily toward teaching because of the amount of time needed to respond to student work. The Chair wants us to contribute every spare minute to building the department, and the Dean thinks we can teach the way he does—the lecture. He expects first-rate teaching and first-rate research. The Provost wants to keep us occupied with committees and projects that will produce nothing so that we won't have time to do work (i.e., research) the school will pay for. So we are pulled in many directions at once.

TIME PRESSURE

An ancillary theme in the open-ended comments had to do with a sense of time pressure. Across institutions and institution types, respondents reported that time is insufficient to perform the range of roles and responsibilities expected of them. The following comment reflects the tension faculty feel around workload issues:

For the next year I have been given five courses to teach in the Fall term and then a label of "reduced load" in the Spring with four courses. This teaching load makes research distant and also makes teaching less important as administrative, recruiting, public relations, advising, committee work and community service are

added in. I think the college needs to define its boundaries and the roles of faculty.

This frustration around time, multiple roles and responsibilities, and changing institutional priorities appeared especially difficult for new faculty anticipating tenure.

The tension you have captured in this survey is very frustrating for young tenure-track faculty members like myself. There is a great deal of workload emphasis on teaching, but when you get to tenure and promotion, the bean counters look to how much you've published.

The worst part of being a faculty member without tenure is the changing standards for research and not knowing what they will be when I apply.

RHETORIC AND REALITY

Another important theme that emerged from faculty comments was the difference between the rhetoric and the reality around faculty roles and rewards. Clearly many faculty respondents perceived "mixed messages" vis à vis the relative importance of research and undergraduate teaching at their institutions. The phrase "lip service" was the phrase most frequently used to describe institutional support for teaching. Faculty comments reflected the rhetoric of changing institutional priorities, but few respondents reported having seen what they considered to be tangible evidence of change. The crucible seemed to be promotion and tenure and faculty merit decisions, where respondents perceived little follow-through on campus rhetoric about the importance of teaching:

Despite the rhetoric, I do not believe teaching and research are truly valued equally in the decisions that matter most to me—promotion and tenure decisions, merit pay increases, and resource allocation to programs.

Although considerable lip service is paid to the importance of teaching, research—or more accurately publication—is the only sure way to real

rewards. The more attention one pays to the real needs of the students we teach, the more the lip service and the fewer the rewards.

CHANGE OVER TIME

Change over time was another strong theme in faculty comments. Change was reflected in comments having to do with respondents' personal priorities and perspectives as well as those of their institutions. Faculty reported being caught in institutional change they perceived as originating with campus leaders.

I took this position with a teaching-focus in mind. Then a new Provost entered and encouraged an emphasis on research.

Historically, this institution has been interested primarily in undergraduate education. The new administration is now emphasizing research in an effort to raise prestige.

There's been a shift in the value of research. Many "old timers" were tenured under a system in which research was nice but not very important. Most junior faculty in the last ten years recognize the importance of research.

I see this institution as almost schizophrenic in its emphasis on teaching/research. Fifteen years ago the emphasis was on teaching; seven years ago it was on research; now it is returning to teaching. I have found this changing emphasis to be confusing and exhausting.

These comments reflected a sense of apprehension that institutional priorities will change in ways that are not amenable to faculty or that faculty will be expected to perform roles for which they were not prepared. Respondents reported changing priorities of their own, principally over time. Some faculty reported that their emphasis on undergraduate teaching has grown over time; others reported that in their advanced tenure years they preferred to focus their energies on research. There are different stages in the faculty career cycle, and those stages are affected by such variables as academic discipline and institution type as well as personal inclination and professional development.

I've given substantially more emphasis to teaching than research in my first ten years at this institution. Now that I have my teaching duties under control, so to speak, I plan to do more research.

Prior to receiving tenure, I needed to devote myself to research activities (getting a book published). Now that I have passed that hurdle, I find myself focusing on teaching.

EVALUATING TEACHING

An important issue that emerged from respondents' comments was the need for work in the area of teaching evaluation. Faculty may have reservations about current practices for evaluating research, but by and large, their comments suggested that peer review has become institutionalized. Respondents' comments reflected concern that greater emphasis on teaching be accompanied by trustworthy methods and measures for evaluating teaching performance.

I think our institution has a high degree of agreement on the importance of teaching. What we do not do well is assess the quality and effectiveness of our teaching as opposed to its popularity.

I believe my institution values teaching, but articles are easier to count. It is just harder to measure good teaching.

SUMMARY

While responses to the scaled items portrayed a picture of campus perceptions, respondents' comments provided a more complicated picture of faculty work. Reading comments from faculty on hundreds of campuses provided a keen sense of the people behind these data. Two strong impressions about faculty emerged: they are dedicated to their work with students and to pursuing their own scholarly lives, and they are struggling to satisfy those needs as well as the other demands made of them. Clearly faculty are not all at the same point in their careers or approaching their work from the same disciplinary perspective. Differences in institution type and campus culture coupled with individual preferences made faculty perceptions hard to isolate; however, the themes that emerged from reading thousands of comments reminded us that, despite their differences, faculty experience similar tensions and face similar challenges.

Appendix A

National Study: Participating Institutions By *Carnegie Classification Category and Study Phase

Research I	Phase
Arizona State University	I
Carnegie Mellon University	I
Georgetown University	I
Indiana University at Bloomington	I
Michigan State University	I
Northwestern University	I
Ohio State University	I
Pennsylvania State University	I
Rutgers, State University of New Jersey	I
State University of New York at Buffalo	I
University of California at Berkeley	I
University of California at Davis	I
University of California at Irvine	I
University of Hawaii at Manoa	I
University of Massachusetts at Amherst	I
University of Miami	I
University of Michigan at Ann Arbor	I
University of Missouri at Columbia	I
University of Wisconsin at Madison	I
Virginia Commonwealth University	I
West Virginia University	I
Brown University	II
Emory University	II
Florida State University	II
Purdue University	II
Stanford University	II
Temple University	II
Texas A & M University	II
University of Florida	II
University of Illinois at Chicago	II
University of Kentucky	II
University of Pittsburgh-Main Campus	II
University of Toronto	II
University of Washington	II

Research II	
Clemson University	I
Lehigh University	I
Northeastern University	I
University of Delaware	I
University of Rhode Island	I
Washington State University	I
George Washington University	II
Kent State University	II
Mississippi State University	II
Southern Illinois University, Carbondale	II
University of Oregon	II
University of South Florida	II
University of Wyoming	II

Doctoral I	
American University	I
Ball State University	I
Loyola University of Chicago	I
Marquette University	I
Miami University at Oxford	I
Northern Illinois University	I
Southern Methodist University	I
State University of New York at Binghamton	I
University of Akron	I
University of Arkansas at Fayetteville	I
University of Louisville	I
University of Maryland	I
Western Michigan University	I
Boston College	II
Bowling Green State University	II
Hofstra University	II
Northern Arizona University	II
University of Toledo	II

Doctoral II	
Baylor University	I
Clarkson University	I
Cleveland State University	I
Drake University	I
Duquesne University	I
Idaho State University	I
University of Nevada at Reno	I
University of New Hampshire	I
University of North Dakota	I
DePaul University	II
Indiana University Purdue University at Indianapolis	II
Michigan Tech University	II
Pace University	II
Texas Christian University	II
University of Alaska at Fairbanks	II
University of San Diego	II
Wright State University	II

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Master's I

Drake University I
Avila College II
Azusa Pacific University II
Beaver College II
Bellarmine College II
Boise State University II
California State University at Fresno II
California State University at Hayward II
California State University at Long Beach II
California University of Pennsylvania II
Converse College II
East Carolina University II
East Stroudzburg University II
Emmanuel College II
Fairleigh Dickinson University at Rutherford II
Golden Gate University II
Illinois Benedictine College II
Ithaca College II
Jacksonville University II
James Madison University II
Kean College of New Jersey II
Loyola College in Maryland II
Marywood College II
Moorhead State University II
Nazareth College of Rochester II
Northeast Louisiana University II
Oakland University II
Queens College - City University of NY II
Sacred Heart University II
Saint Bonaventure University II
Saint Mary's University of Minnesota II
Saint Michael's College II
Saint Xavier College II
Santa Clara University II
Shippensburg University II
Southern Illinois University at Edwardsville II
State University of New York at Plattsburgh II
State University of NY College at Geneseo II
The Citadel II
Trenton State University II
Trinity College of Washington DC II
University of Arkansas at Little Rock II
University of Hartford II
University of Indianapolis II
University of Montevallo II
University of Nebraska at Kearney II
University of New Haven II
University of North Carolina at Charlotte II
University of Pittsburgh at Johnstown II
University of Portland II
University of South Alabama II
University of Texas at El Paso II
University of the District of Columbia II
University of Wisconsin at La Crosse II
Villanova University II
Western Washington University II
Widener University II
Winthrop University II

Master's II

Arizona State University West II
Drury College II
Heritage College II
Lenoir-Rhyne College II
Linfield College II
Longwood College II
Mount Saint Mary College- Emmitsburg II
Saint John Fisher College II
University of Tampa II
Westminster College of Salt Lake City II

Baccalaureate I

Agnes Scott College II
Alma College II
Austin College II
Bucknell University II
Carleton College II
Centre College II
Chatham College II
Claremont McKenna College II
Colby College II
Colorado College II
Concordia College at Moorhead II
Davidson College II
Denison University II
Franklin and Marshall College II
Furman University II
Gettysburg College II
Gordon College II
Guilford College II
Hamline University II
Hollins College II
Huntingdon College II
Kalamazoo College II
Knox College II
Lafayette College II
Lake Forest College II
Lawrence University II
Macalester College II
Moravian College II
Nebraska Wesleyan University II

Occidental College II
Ohio Wesleyan University II
Randolph-Macon College II
Siena College II
Southwestern University II
The College of Wooster II
The University of the South II
Transylvania University II
Trinity College of Hartford II
University of North Carolina at Asheville II
University of Puget Sound II
Ursinus College II
Vassar College II
Wabash College II
Washington College II
Wesleyan College II
Whittier College II
William Jewell College II
Williams College II
Wittenberg University II

Baccalaureate II

Augustana College II
Bennett College II
Bloomfield College II
Briar Cliff College II
Buena Vista College II
Caldwell College II
Campbellsville College II
Catawba College II
Coker College II
Eastern Mennonite College II
Emory and Henry College II
Felician College II
John Brown University II
Kentucky Wesleyan College II
King's College II
Lakeland College II
Lebanon Valley College of Pennsylvania II
Loras College II
Lourdes College II
Malone College II
Manchester College II
Marymount College Tarrytown II
Millikin University II
Neumann College II
Ohio Northern University II
Saint Mary College II
Saint Mary of the Woods College II
Saint Thomas Aquinas College II
Seton Hill College II
Shorter College II
Simpson College II
Spring Arbor College II
Stephens College II
The Defiance College II
Tougaloo College II
University of Findlay II
University of Pittsburgh at Bradford II
University of the Ozarks II
Ursuline College II
West Virginia Institute of Technology II

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* As classified in the 1994 edition of *A Classification of Institutions of Higher Education*, The Carnegie Foundation for the Advancement of Teaching.

Appendix B
The 1994 Carnegie Classification
Definition of Categories

The 1994 Carnegie Classification includes all colleges and universities in the United States that are degree-granting and accredited by an agency recognized by the U.S. Secretary of Education.

Research Universities I: These institutions offer a full range of baccalaureate programs, are committed to graduate education through the doctorate, and give high priority to research. They award 50 or more doctoral degrees each year. In addition, they receive annually $40 million or more in federal support.

Research Universities II: These institutions offer a full range of baccalaureate programs, are committed to graduate education through the doctorate, and give high priority to research. They award 50 or more doctoral degrees each year. In addition, they receive annually between $15.5 million and $40 million in federal support.

Doctoral Universities I: These institutions offer a full range of baccalaureate programs and are committed to graduate education through the doctorate. They award at least 40 doctoral degrees annually in five or more disciplines.

Doctoral Universities II: These institutions offer a full range of baccalaureate programs and are committed to graduate education through the doctorate. They award annually at least ten doctoral degrees—in three or more disciplines—or 20 or more doctoral degrees in one or more disciplines.

Master's (Comprehensive) Colleges and Universities I: These institutions offer a full range of baccalaureate programs and are committed to graduate education through the master's degree. They award 40 or more master's degrees annually in three or more disciplines.

Master's (Comprehensive) Colleges and Universities II: These institutions offer a full range of baccalaureate programs and are committed to graduate education through the master's degree. They award 20 or more master's degrees annually in one or more disciplines.

Baccalaureate (Liberal Arts) Colleges I: These institutions are primarily undergraduate colleges with major emphasis on baccalaureate degree programs. They award 40 percent or more of their baccalaureate degrees in liberal arts fields and are restrictive in admissions.

Baccalaureate (Liberal Arts) Colleges II: These institutions are primarily undergraduate colleges with major emphasis on baccalaureate degree programs. They award less than 40 percent of their baccalaureate degrees in liberal arts fields or are less restrictive in admissions.

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A National Study On the Relative Importance of Research and Undergraduate Teaching At Colleges and Universities

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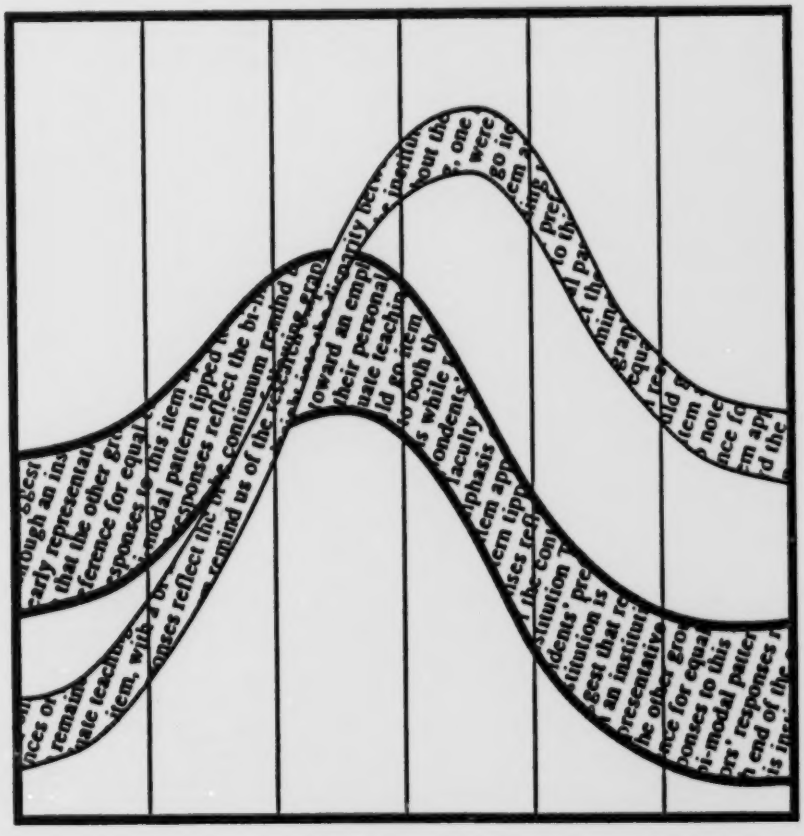

February 1996

Center for Instructional Development • Syracuse University

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WITH SUPPORT FROM THE PEW CHARITABLE TRUSTS

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Robert M. Diamond,
Project Director

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A National Study on the Relative Importance of Research & Undergraduate Teaching at Colleges and Universities

OVERVIEW

This report details the second stage of a study of the perceived relative importance of research and undergraduate teaching at American colleges and universities. Study subjects were faculty, academic unit heads, deans, and administrators at 187 four-year institutions ranging from liberal arts colleges to research universities. The first phase of the study surveyed respondents at 49 Research and Doctoral institutions. Those data were reported in March 1992. This report is organized into five sections:

In Part I, background for the study is established. National studies and reports are reviewed including previous relevant research at Syracuse University. The survey instrument is displayed and discussed. This section also describes survey administration.

Part II details demographic data for institutions and individual respondents. Table 1 lists the participating institutions for both phases of the study. Return rates are shared as well as analyses of respondents by gender, academic rank, number of years at institution and time devoted to undergraduates.

Part III of the report details study findings and consists of four sections. Findings begin with comparisons of data from Phases I and II. Since Phase I participants were all in the Research or Doctoral categories (as classified by the Carnegie system), a subset of the participating institutions in Phase II (all Research and Doctoral institutions) was used for comparative purposes.

Section 2 shares comparisons of responses to two key items: What direction do you perceive your institution *is going*? What direction do you perceive it *should go?* Responses to these items are analyzed for different respondent groups and institutional categories. In Section 3 the focus for analysis of survey responses is the academic area. Phase I and II comparisons are drawn and responses to key items are compared across major academic areas and Carnegie classifications.

Section 4 of the Findings describes the relationship of respondents' self perceptions to the perceptions other respondent groups have about their position vis à vis the relative importance of research and undergraduate teaching.

Part IV of the report shares six common themes in responses to the survey's open-ended question, and Part V focuses data analysis at the institution level and offers three illustrative cases for consideration.

OBSERVATIONS AND CONCLUSIONS

- Comparisons of Phase I (1990-92) and Phase II (1992-94) data from Research and Doctoral institutions indicated a shift from a strong research emphasis to a balance between research and undergraduate teaching.
- Phase II responses from Research and Doctoral institutions suggest support for the shift toward a balance between research and undergraduate teaching perceived by respondents.
- Phase II responses reflected more consistency in perceptions among faculty, academic unit heads, deans, and administrators than characterized the Phase I results.
- The direction Phase II respondents reported their institution *is going* shifted from a moderate research emphasis to a strong teaching emphasis as responses were viewed across Carnegie classifications from Research I to Baccalaureate II institutions.
- The direction Phase II respondents reported their institution *should go* shifted from a balanced emphasis to a strong teaching emphasis as responses were viewed across the Carnegie categories from Research I to Baccalaureate II institutions.
- Although item means suggested that there was strong convergence of faculty perceptions, there was considerable variability in responses to the *is going* item, except at Baccalaureate II and Master's II institutions.
- The most consistent and complementary perceptions vis à vis the relative importance of research and undergraduate teaching were at Baccalaureate II and Master's II institutions.
- Bi-modal patterns of response on the *should go* item suggested two groups of respondents—one favoring a balance between research and undergraduate teaching and the other favoring a teaching emphasis.

- While there was a general convergence of perceptions within Carnegie categories, there were individual institutions within each grouping with quite different profiles.
- Respondents' self-perceptions and the perceptions others have about them did not always match. Differences in perceptions were most striking at Research universities and least apparent at Baccalaureate colleges.
- Phase II responses from those in various academic areas indicated differences in the way respondents perceived the direction their institution *is going* and *should go*.
- Comparisons of Phase I and Phase II responses from those in various academic areas indicated a significant difference in perceptions—Phase II respondents perceived less emphasis on research at their institutions than did those in Phase I.
- Academic department affiliation affected respondents' perceptions of the relative importance of research and undergraduate teaching.
- Comments from faculty reflected considerable frustration that the faculty reward system does not support rhetoric about the importance of teaching.
- Comments from respondents in every role and category reflected workload concerns.
- Distinctive institutional cultures influenced faculty perceptions vis à vis the relative importance of research and undergraduate teaching.

PART I

INTRODUCTION

BACKGROUND

The Lilly Endowment has since 1991 provided financial support for a national study of the perceived relative importance of research and undergraduate teaching at colleges and universities. Study subjects included faculty, unit heads (that is, those responsible for academic departments or programs), academic deans, and other academic administrators. The results of the first phase of this study which took place from 1990-1991 were reported in 1992, based on over 23,000 responses from 49 Research and Doctoral institutions (Gray, Froh, Diamond, 1992). This report details the second phase of the study which extended the survey to an additional 187 institutions in all Carnegie classification categories. Phase II of the study was conducted from fall 1992 to spring 1994 and was supported by the Pew Charitable Trusts as well as the Lilly Endowment.

The study revealed considerable variability among institutions in different Carnegie classification categories, among institutions within classification categories, and within institutions themselves. There also were striking commonalties which suggest that faculty, unit heads, deans, and administrators at research and doctoral institutions generally want to see equal importance attributed to research and undergraduate teaching, while those at most Master's and Baccalaureate institutions favor a teaching emphasis.

A close look at the definitions of research and teaching and the nature of the relative emphasis desired by respondents in different contexts provides a picture of the rich tapestry of higher education in the 1990s. In addition, this picture illustrates some of the fundamental tensions felt by those in higher education, as well as some of the solutions to the problems facing higher education as it seeks to meet the demands of the 21st century.

NATIONAL REPORTS AND STUDIES

Questions around the relative importance of research and undergraduate teaching have been considered in numerous studies of higher education. The majority of

these studies have focused primarily on how faculty at research universities spend their time and faculty productivity vis à vis publications, citations, and grants awarded (for example, Blackburn, 1985; Blackburn and Havinghurst, 1979; Cameron, 1981; Clark and Centra, 1982; Clemente, 1973; Cole and Cole, 1967; Hogan, 1981; Reskin, 1977; and Samson, 1984). Fairweather (1992, 1993) also has reported extensively on the correlation between high faculty salaries and research and publication. These studies seemed to take for granted the existing culture, which emphasizes research more strongly than teaching, rather than questioning the appropriateness of this culture for contemporary higher education. Furthermore, these studies failed to examine the degree to which the research-centered paradigm was supported by those in the academic community. They also failed to focus on the impact of the research culture on institutions with an historical teaching mission.

Studies such as Cochran (1989), as well as national reports and publications from the mid-1980s forward, suggested that administrators and others at research universities believed that more attention should be given to teaching (for example, *College: The Undergraduate Experience in America*, Boyer, 1987; *Integrity in the College Curriculum: A Report to the Academic Community*, Association of American Colleges, 1985; *Involvement in Learning: Realizing the Potential of American Higher Education*, The National Institute of Education, October 1984; *To Reclaim a Legacy*, Bennett, 1984).

Many have observed that a conflict exists for faculty at all types of colleges and universities around their research and teaching responsibilities. Faculty committed to teaching often find themselves torn between their concern for students and the demands for research and publication that are perceived as necessary for professional advancement at their home institutions and within their disciplines. *The Chronicle of Higher Education*'s recently published Almanac (September 1995) cited Carnegie Foundation survey data that 42% of US faculty believe "the pressure to publish reduces the quality of teaching at this [their] institution." This concern was a common theme in comments of faculty in the initial phase of this study.

Boyer reported (1987) that divided loyalties and competing career concerns among the faculty were major points of tension that "appeared with regularity and seemed consistently to sap the vitality of the baccalaureate experience" (p. 4). In addition, Derek Bok, then president of Harvard University, noted in a presentation at the annual meeting of the American Council of Learned Societies that, "many

professors believe the current faculty reward system places a premium on the *quantity* of scholarly work produced" (1991). Data cited in the *Chronicle's* Almanac (1995) reinforced Bok's assertion four years later. Forty-five percent of faculty respondents reported that "publications used for promotion decisions are just counted, not qualitatively evaluated."

A fundamental tension seems to exist in higher education, stimulated by conflicting values regarding how faculty spend their time and how faculty work should be rewarded. This tension raises important questions related to the appropriate balance between research and undergraduate teaching. In addition, across campuses and academic disciplines there are concerns about narrow definitions of research and scholarship and about reward systems that emphasize the quantity rather than the quality of faculty work.

Gaining a better understanding of the extent to which the higher education community values research and teaching was a major goal of the study reported here. The nation-wide quantitative profile and the extensive qualitative data that have resulted from this study have provided a backdrop for national and local discussions about the relative importance of research and undergraduate teaching, the redefinition of scholarship, and how to achieve an appropriate balance of rewards for the various scholarly activities in which faculty engage.

In particular, the Phase I study results provided participating research institutions with information about the perceptions that existed on their campuses, as well as a composite national picture useful for comparative purposes. A number of follow-up meetings have been held on the campuses that participated in the first phase of this study to disseminate the results and to discuss their implications. Phase I study results have been reported at national meetings of scholarly and academic associations and have been disseminated through the publications and programs of the American Association for Higher Education.

PREVIOUS RESEARCH AT SYRACUSE UNIVERSITY

In the spring of 1989, Syracuse University received a twelve-month grant from the Sears Roebuck Foundation for a project entitled *Affecting Priorities at a Research Institution: Focus on Teaching*. The national study reported here builds on the work of this initial project, the Sears Project.

The goal of the Sears Project was to enhance the perceived importance of undergraduate teaching at Syracuse University. The project had three purposes related to this goal; first, to help deans and department chairs gain a better understanding of how they influence the attitudes and priorities of faculty regarding teaching; second, to assist these administrators in identifying the various activities and resources they could use to influence attitudes and priorities; and third, to indicate ways in which central administrators could support deans and chairs in these efforts.

As the first step, a set of surveys was developed and administered to faculty, department chairs, and deans. These surveys focused on current perceptions of the relative importance of research and undergraduate teaching at Syracuse University, the direction respondents perceived the institution was going, and the direction that they perceived Syracuse should go.

Response rates for the SU survey administered in 1989 were: 70% from deans (10), 59% from chairs (27), and just over 40% from faculty (352). The quantitative results from the survey items provided data on the climate of the institution at that time and established a base-line so that changes over time could be measured. Survey results in 1989 showed that respondents perceived research as being valued more highly than undergraduate teaching at Syracuse University and that the administration was perceived as assigning greater importance to research than to undergraduate teaching. On average, all three groups indicated, however, that equal importance or a balance of research and undergraduate teaching was desired. An overwhelming number of respondents took the time to write powerful responses to the optional, open-ended question on the surveys. These qualitative results identified important strengths and weaknesses in the present reward system and suggested ways to align the reward system with research and undergraduate teaching responsibilities.

The same instrument was used to survey the campus again in the spring of 1995. Results suggest that a major shift in priorities and perceptions has occurred at Syracuse in the six year period since the first study. Response rates for the second administration of the survey were: 100% from deans (13), 87% from academic unit heads (47), and 54% from faculty (456). While in 1989 respondents' perceptions were that Syracuse was a research-focused institution, in 1995 a greater proportion of respondents reported that the institution *is going* in a direction that assigns equal importance to research and undergraduate teaching. Furthermore, respondents generally perceived that the institution *should go* in this direction. From these responses we can conclude that members of the campus academic community support the shift in priorities they perceive to have taken place. Such changes in perception can be traced to initiatives designed to enhance the importance of teaching at Syracuse University (Diamond and Adam, 1995).

The initial Syracuse University data were used as the basis for discussions of the importance of undergraduate teaching among academic administrators, deans, academic unit heads, and faculty. Campus-wide changes in promotion, tenure and merit pay criteria and processes resulted from these conversations. Reports on the Syracuse University study and related activities are listed among the references under Center for Instructional Development (January 1991, April 1991, June 1995).

SURVEY FORM

Both phases of the national study utilized modified versions of the survey instrument originally developed at Syracuse as part of the Sears Project. In adapting the Syracuse survey for use in the National Study, a core set of items was customized through slight modifications to make them appropriate for individual campuses and to the different groups responding, that is, full-time faculty, unit heads (those responsible for academic departments or programs), academic deans, and other academic administrators on these campuses. While items were added for some individual campuses, the core items remained the same on all surveys.

A prototype version of the faculty survey form is shown in Figure 1. The first part of the survey consists of eight items. These items asked respondents to indicate the relative importance of research and undergraduate teaching to them personally and to others on their campus, in their perception. A teaching–research continuum is associated with each item. On this continuum, a 0 indicates equal importance, that is, an equal balance between research and undergraduate teaching. The four

Figure 1
Sample Faculty Survey on Research and Undergraduate Teaching

Even if you do not teach undergraduates, please circle the number on each scale below that best represents your perception of the relative importance of research versus undergraduate teaching. For example, a 4 would indicate that one is of utmost importance to the exclusion of the other, and a 0 would indicate that they are of equal importance. All responses will be confidential. Only group data will be reported.

A. ***In relation to each other, how do you perceive the importance of research and undergraduate teaching to:***

a. you personally

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

b. the majority of other faculty in your department

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

c. your academic unit head (e.g., department chair)

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

d. your dean

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

e. the Office of Academic Affairs

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

B. Please circle the number on each scale below that best represents your perception of:

a. the direction that you think your university is going

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

b. the direction that you think your university should go

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

c. the direction that you think you should go based on your interests

teaching — equal importance — research

4 3 2 1 0 1 2 3 4

C. Please comment on the similarities and differences in the above ratings. (Use back of form if necessary.)

D. Demographics

a. department and school/college _____

b. faculty rank _____ c. no. of years at institution _____ d. gender (circle one) M F

e. % of time devoted to: (should add to 100%)

teaching and advising undergraduate students _____ teaching and advising graduate students _____

research activities _____ service and administration _____

6

Thank you for your assistance. Please return this survey via campus mail in the envelope provided.

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numbers on the right side of the continuum were provided so that respondents could indicate that, relatively speaking, research is more important. Similarly, those numbers on the left side could be chosen to indicate that teaching is more important. By choosing numbers other than 0, respondents indicated *relative* importance. For example, by choosing a number on the teaching side of the continuum, respondents were not indicating that research was unimportant, but that the balance was perceived as being tipped toward teaching.

The second set of items used the same continuum to solicit respondents' perceptions of the direction that their institution *is going*, the direction that it *should go*, and, where appropriate, the directions that respondents personally (faculty), their unit (unit heads), or their school or college (deans) *should go*, given present strengths and interests.

Next on the prototype survey form was an open-ended item that asked respondents to comment on their responses to the two sets of scaled items. Information from these comments provided insight into personal points of view and the perceptions of the local campus community that prompted individual responses.

The last set of items included demographic variables for respondents. These variables included, when appropriate, academic unit, gender, and number of years at the institution, faculty rank, and percentage of time faculty devoted to teaching, research, and other activities. The demographic profile of respondents for the Phase II study is reported in the next section.

Survey Administration

Surveys were administered on participating campuses with the assistance of a campus liaison appointed by the institution. The liaison consulted with the assistant project director about modifications needed to make the survey forms appropriate for the particular campus (for example, titles of academic offices or divisions). Most campuses chose to conduct a blanket survey of all members of the academic community. The participating institutions were responsible for handling the distribution and collection of the surveys. Most institutions elected to have respondents return the surveys to a central office on campus, although some chose to have respondents return them directly to the Center for Instructional Development for processing.

PART II

DEMOGRAPHIC DATA

The results presented and discussed in this report build on the data collected in Phase I of this national study. The first phase took place from 1990 to 1992 and surveyed over 46,000 full-time faculty, unit heads, academic deans, and other academic administrators at 49 United States research and doctoral institutions, as categorized by the Carnegie Foundation classification system (The Carnegie Foundation, 1987). There were 23,302 usable responses to this survey, the results of which was reported in Gray, Froh, and Diamond (March 1992).

Phase II of this national study took place from 1992 to 1994. This phase involved surveying over 60,000 full-time faculty, unit heads, academic deans, and other academic administrators at 196 institutions in the United States and Canada. The data set on which this report is based comes from 187 four year US institutions across all eight Carnegie classification categories (The Carnegie Foundation, 1994). There were 27,884 usable responses to the surveys distributed in Phase II.

Over 100,000 people were surveyed in Phases I and II of this national study. The over 51,000 US respondents from both phases equal approximately 10% of all full-time faculty, unit heads, academic deans, and other academic administrators at four year institutions in the United States.

Shown in Table 1 is the complete list of participating institutions from Phase I and Phase II. Institutions are grouped by Carnegie classification categories and are listed alphabetically within those categories with Phase I institutions preceding Phase II institutions. Many of the analyses in this report are based on the Carnegie classification categories (1994). These categories were used because they provide a standard way of grouping higher educational institutions in the United States, they have an inherent logic to them, and they are recognized by those in institutions as a reasonable way to describe themselves (see Appendix A).

The results of this study enrich our understanding of the Carnegie classification categories by providing information about similarities and differences in perceptions of the relative importance of research and undergraduate teaching on the part of faculty, units heads, deans, and other administrators both within and across categories. This report focuses primarily on Phase II of the national study of the perceived relative importance of research and undergraduate teaching.

Table 1
National Study: Participating Institutions
By *Carnegie Classification Category and Study Phase

Research I	Phase
Arizona State University	I
Carnegie Mellon University	I
Georgetown University	I
Indiana University at Bloomington	I
Michigan State University	I
Northwestern University	I
Ohio State University	I
Pennsylvania State University	I
Rutgers, The State University of New Jersey	I
State University of New York at Buffalo	I
University of California at Berkeley	I
University of California at Davis	I
University of California at Irvine	I
University of Hawaii at Manoa	I
University of Massachusetts at Amherst	I
University of Miami	I
University of Michigan at Ann Arbor	I
University of Missouri at Columbia	I
University of Wisconsin at Madison	I
Virginia Commonwealth University	I
West Virginia University	I
Brown University	II
Emory University	II
Florida State University	II
Purdue University	II
Stanford University	II
Temple University	II
Texas A & M University	II
University of Florida	II
University of Illinois at Chicago	II
University of Kentucky	II
University of Pittsburgh-Main Campus	II
University of Toronto	II
University of Washington	II

Research II	
Clemson University	I
Lehigh University	I
Northeastern University	I
University of Delaware	I
University of Rhode Island	I
Washington State University	I
George Washington University	II
Kent State University	II
Mississippi State University	II
Southern Illinois University at Carbondale	II
University of Oregon	II
University of South Florida	II
University of Wyoming	II

Doctoral I	
American University	I
Ball State University	I
Loyola University of Chicago	I
Marquette University	I
Miami University at Oxford	I
Northern Illinois University	I
Southern Methodist University	I
State University of New York at Binghamton	I
University of Akron	I
University of Arkansas at Fayetteville	I
University of Louisville	I
University of Maryland	I
Western Michigan University	I
Boston College	II
Bowling Green State University	II
Hofstra University	II
Northern Arizona University	II
University of Toledo	II

Doctoral II	
Baylor University	I
Clarkson University	I
Cleveland State University	I
Drake University	I
Duquesne University	I
Idaho State University	I
University of Nevada at Reno	I
University of New Hampshire	I
University of North Dakota	I
DePaul University	II
Indiana University Purdue University at Indianapolis	II
Michigan Tech University	II
Pace University	II
Texas Christian University	II
University of Alaska at Fairbanks	II
University of San Diego	II
Wright State University	II

Master's I

Drake University	I
Avila College	II
Azusa Pacific University	II
Beaver College	II
Bellarmine College	II
Boise State University	II
California State University at Fresno	II
California State University at Hayward	II
California State University at Long Beach	II
California University of Pennsylvania	II
Converse College	II
East Carolina University	II
East Stroudsburg University	II
Emmanuel College	II
Fairleigh Dickinson University at Rutherford	II
Golden Gate University	II
Illinois Benedictine College	II
Ithaca College	II
Jacksonville University	II
James Madison University	II
Kean College of New Jersey	II
Loyola College in Maryland	II
Marywood College	II
Moorhead State University	II
Nazareth College of Rochester	II
Northeast Louisiana University	II
Oakland University	II
Queens College - City University of NY	II
Sacred Heart University	II
Saint Bonaventure University	II
Saint Mary's University of Minnesota	II
Saint Michael's College	II
Saint Xavier College	II
Santa Clara University	II
Shippensburg University	II
Southern Illinois University at Edwardsville	II
State University of New York at Plattsburgh	II
State University of NY College at Geneseo	II
The Citadel	II
Trenton State University	II
Trinity College of Washington DC	II
University of Arkansas at Little Rock	II
University of Hartford	II
University of Indianapolis	II
University of Montevallo	II
University of Nebraska at Kearney	II
University of New Haven	II
University of North Carolina at Charlotte	II
University of Pittsburgh at Johnstown	II
University of Portland	II
University of South Alabama	II
University of Texas at El Paso	II
University of the District of Columbia	II
University of Wisconsin at La Crosse	II
Villanova University	II
Western Washington University	II
Widener University	II
Winthrop University	II

Master's II

Arizona State University West	II
Drury College	II
Heritage College	II
Lenoir-Rhyne College	II
Linfield College	II
Longwood College	II
Mount Saint Mary College- Emmitsburg	II
Saint John Fisher College	II
University of Tampa	II
Westminster College of Salt Lake City	II

Baccalaureate I

Agnes Scott College	II
Alma College	II
Austin College	II
Bucknell University	II
Carleton College	II
Centre College	II
Chatham College	II
Claremont McKenna College	II
Colby College	II
Colorado College	II
Concordia College at Moorhead	II
Davidson College	II
Denison University	II
Franklin and Marshall College	II
Furman University	II
Gettysburg College	II
Gordon College	II
Guilford College	II
Hamline University	II
Hollins College	II
Huntingdon College	II
Kalamazoo College	II
Knox College	II
Lafayette College	II
Lake Forest College	II
Lawrence University	II
Macalester College	II
Moravian College	II
Nebraska Wesleyan University	II

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Occidental College	II
Ohio Wesleyan University	II
Randolph-Macon College	II
Siena College	II
Southwestern University	II
The College of Wooster	II
The University of the South	II
Transylvania University	II
Trinity College of Hartford	II
University of North Carolina at Asheville	II
University of Puget Sound	II
Ursinus College	II
Vassar College	II
Wabash College	II
Washington College	II
Wesleyan College	II
Whittier College	II
William Jewell College	II
Williams College	II
Wittenberg University	II

Baccalaureate II

Augustana College	II
Bennett College	II
Bloomfield College	II
Briar Cliff College	II
Buena Vista College	II
Caldwell College	II
Campbellsville College	II
Catawba College	II
Coker College	II
Eastern Mennonite College	II
Emory and Henry College	II
Felician College	II
John Brown University	II
Kentucky Wesleyan College	II
King's College	II
Lakeland College	II
Lebanon Valley College of Pennsylvania	II
Loras College	II
Lourdes College	II
Malone College	II
Manchester College	II
Marymount College Tarrytown	II
Millikin University	II
Neumann College	II
Ohio Northern University	II
Saint Mary College	II
Saint Mary of the Woods College	II
Saint Thomas Aquinas College	II
Seton Hill College	II
Shorter College	II
Simpson College	II
Spring Arbor College	II
Stephens College	II
The Defiance College	II
Tougaloo College	II
University of Findlay	II
University of Pittsburgh at Bradford	II
University of the Ozarks	II
Ursuline College	II
West Virginia Institute of Technology	II

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* As classified in the 1994 edition of *A Classification of Institutions of Higher Education*, The Carnegie Foundation for the Advancement of Teaching.

National and Sample Populations

Table 2A breaks the participating institutions into phases and Carnegie classification categories. The percentage of institutions in the Phase II sample (Table 2B) approximates the national distribution of four-year institutions of higher education in the United States as organized by the Carnegie classification categories and reported in the 1994 publication of that classification schema. Overall, 13% of the four-year institutions of higher education are included in the sample population, with 19% of the Research II and 28% of the Baccalaureate I institutions included. The largest number of respondents in Phase II were in Master's I institutions (8,304). Together the respondents at Research I and Master's I institutions accounted for approximately 55% of all faculty respondents. Therefore, it is clearly necessary to examine the responses of those in different types of institutions separately. As shown in Table 2C, there are slightly more private institutions in the Phase II sample than there are nationally, which is also mirrored in the profile of sample population respondents.

Return Rates

Overall, the Phase II return rate was 45%, although it was as high as 62% for those in Baccalaureate II institutions (Table 3). Among those in different roles, the return rates of only two groups dropped below 35%, Research I administrators (18%) and Doctoral II administrators (18%). The highest return rates were among Doctoral I unit heads (89%) and Baccalaureate II administrators (79%).

Respondents' Roles

Table 4 shows the number of faculty, unit heads, academic deans, and other academic administrators in the sample population under each Carnegie classification category and by gender. Overall, nearly three-quarters of the respondents were male. It is interesting to note that the percentages of females and males were closest among the Baccalaureate II respondents, especially among the administrative group (47% female and 53% male). In contrast, the discrepancy in the percentage of females to males was greatest among Research I respondents, with the 12% female and 88% male unit heads being the most discrepant. Among all roles, the unit heads had the greatest percentage of males in six of the classification categories. Among Doctoral II and Master's II institutions, the role of dean had the greatest percentage of males.

Table 2A

Phase I and Phase II Demographics
Number of Institutions
By Carnegie Classification Category

	Phase I	Phase II
Research I	21	12
Research II	6	7
Doctoral I	13	5
Doctoral II	9	8
Master's I	—	57
Master's II	—	10
Baccalaureate I	—	47
Baccalaureate II	—	41
Total	49	187

Table 2B

Phase II Demographics
National and Sample Populations, Institutions, and Respondents
By Carnegie Classification Category

	National Institutions		Sample Institutions			Sample Respondents	
	Total N	% of Total	Total N	% of National	% of Total	Total N	% of Total
Research I	88	6.3%	12	13.6%	6.4%	6,890	24.7%
Research II	37	2.6%	7	18.9%	3.7%	2,624	9.4%
Doctoral I	51	3.6%	5	9.8%	2.7%	2,018	7.2%
Doctoral II	60	4.3%	8	13.3%	4.3%	1,542	5.5%
Master's I	435	31.0%	57	13.1%	30.5%	8,304	29.8%
Master's II	94	6.7%	10	10.6%	5.3%	638	2.3%
Baccalaureate I	166	11.8%	47	28.3%	25.1%	3,589	12.9%
Baccalaureate II	471	33.6%	41	8.7%	21.9%	2,279	8.2%
Total	1,402	100.0%	187	13.3%	100.0%	27,884	100.0%

Table 2C

Phase II Demographics
By Public/Private Status

	National Institutions		Sample Institutions		Sample Respondents	
	Total N	% of Total	Total N	% of National	Total N	% of Total
Private	890	63.5%	134	71.7%	11,329	40.6%
Public	512	36.5%	53	28.3%	16,555	59.4%
Total	1,402	100.0%	187	100.0%	27,884	100.0%

Table 3

Phase II Demographics
Return Rates
By Role and Carnegie Classification Category

	Sent N	Returned N	Return Rate %
Research I	**17,330**	**6,890**	**39.8%**
Faculty	15,217	6,132	40.3%
Unit Heads	987	471	47.7%
Deans	380	155	40.8%
Administrators	746	132	17.7%
Research II	**6,792**	**2,624**	**38.6%**
Faculty	5,918	2,214	37.4%
Unit Heads	526	246	46.8%
Deans	159	97	61.0%
Administrators	189	67	35.4%
Doctoral I	**3,610**	**2,018**	**55.9%**
Faculty	3,220	1,757	54.6%
Unit Heads	165	147	89.1%
Deans	96	65	67.7%
Administrators	129	49	38.0%
Doctoral II	**3,987**	**1,542**	**38.7%**
Faculty	3,600	1,409	39.1%
Unit Heads	201	80	39.8%
Deans	113	40	35.4%
Administrators	73	13	17.8%
Master's I	**19,038**	**8,304**	**43.6%**
Faculty	16,815	7,121	42.3%
Unit Heads	1,382	707	51.2%
Deans	317	197	62.1%
Administrators	524	279	53.2%
Master's II	**1,199**	**638**	**53.2%**
Faculty	987	492	49.8%
Unit Heads	83	61	73.5%
Deans	24	14	58.3%
Administrators	105	71	67.6%
Baccalaureate I	**6,654**	**3,589**	**53.9%**
Faculty	5,749	3,002	52.2%
Unit Heads	497	356	71.6%
Deans	103	56	54.4%
Administrators	305	175	57.4%
Baccalaureate II	**3,698**	**2,279**	**61.6%**
Faculty	2,980	1,745	58.6%
Unit Heads	390	282	72.3%
Deans	81	56	69.1%
Administrators	247	196	79.4%
Total	**62,308**	**27,884**	**44.8%**
Faculty	54,486	23,872	43.8%
Unit Heads	4,231	2,350	55.5%
Deans	1,273	680	53.4%
Administrators	2,318	982	42.4%

Table 4

Phase II Demographics
Sample and Gender
By Carnegie Classification Category and Role

	Sample		Female		Male	
	N	%	N	%	N	%
Research I	**6,890**	**24.7%**	**1,280**	**20.0%**	**5,134**	**80.0%**
Faculty	6,132	89.0%	1,162	20.4%	4,547	79.7%
Unit Heads	471	6.8%	52	11.8%	390	88.2%
Deans	155	2.3%	33	23.4%	108	76.6%
Administrators	132	1.9%	33	27.1%	89	73.0%
Research II	**2,624**	**9.4%**	**661**	**27.9%**	**1,707**	**72.1%**
Faculty	2,214	84.4%	587	29.4%	1,412	70.6%
Unit Heads	246	9.4%	40	18.6%	175	81.4%
Deans	97	3.7%	20	22.2%	70	77.8%
Administrators	67	2.6%	14	21.9%	50	78.1%
Doctoral I	**2,018**	**7.2%**	**525**	**27.5%**	**1,386**	**72.5%**
Faculty	1,757	87.1%	465	28.0%	1,195	72.0%
Unit Heads	147	7.3%	29	20.1%	115	79.9%
Deans	65	3.2%	19	31.2%	42	68.9%
Administrators	49	2.4%	12	26.1%	34	73.9%
Doctoral II	**1,542**	**5.5%**	**448**	**31.8%**	**959**	**68.2%**
Faculty	1,409	91.4%	419	32.6%	865	67.4%
Unit Heads	80	5.2%	14	20.0%	56	80.0%
Deans	40	2.6%	8	20.0%	32	80.0%
Administrators	13	0.8%	7	53.9%	6	46.2%
Master's I	**8,304**	**29.8%**	**2,530**	**32.5%**	**5,244**	**67.5%**
Faculty	7,121	85.8%	2,232	33.6%	4,409	66.4%
Unit Heads	707	8.5%	161	23.7%	519	76.3%
Deans	197	2.4%	48	26.5%	133	73.5%
Administrators	279	3.4%	89	32.7%	183	67.3%
Master's II	**638**	**2.3%**	**225**	**37.5%**	**375**	**62.5%**
Faculty	492	77.1%	170	37.2%	287	62.8%
Unit Heads	61	9.6%	20	32.8%	41	67.2%
Deans	14	2.2%	4	30.8%	9	69.2%
Administrators	71	11.1%	31	44.9%	38	55.1%
Baccalaureate I	**3,589**	**12.9%**	**1,111**	**32.3%**	**2,325**	**67.7%**
Faculty	3,002	83.6%	960	33.3%	1,922	66.7%
Unit Heads	356	9.9%	86	26.4%	240	73.6%
Deans	56	1.6%	19	34.6%	36	65.5%
Administrators	175	4.9%	46	26.6%	127	73.4%
Baccalaureate II	**2,279**	**8.2%**	**895**	**41.1%**	**1,284**	**58.9%**
Faculty	1,745	76.6%	676	40.5%	995	59.6%
Unit Heads	282	12.4%	106	40.2%	158	59.9%
Deans	56	2.5%	24	43.6%	31	56.4%
Administrators	196	8.6%	89	47.1%	100	52.9%
Total	**27,884**		**7,675**	**29.4%**	**18,414**	**70.6%**
Faculty	23,872	85.6%	6,671	29.9%	15,632	70.1%
Unit Heads	2,350	8.4%	508	23.1%	1,694	76.9%
Deans	680	2.4%	175	27.5%	461	72.5%
Administrators	982	3.5%	321	33.9%	627	66.1%

NUMBER OF YEARS AT INSTITUTION

Nearly 50% of all faculty respondents had been at their institutions for 11 years or more, as shown in Table 5A. Doctoral I respondents as a group had the longest history at their institutions, with 49.7% having been there over 11 years. The "youngest" group was the Master's II respondents, where 53% had been at their institutions from one to six years.

Table 5A also shows that 11% more female faculty than male faculty were distributed in the first two categories ("1 to 3 years" and "4 to 6 years"). There was a 4 percentage point difference between females and males in the third and fourth categories ("7 to 10 years" and "11 to 20 years"), but with reversed relationship (more females in the former and more males in the latter). It is interesting to note that in five of the eight Carnegie classification categories there was greater than a 15 percentage point difference between the number of female and male respondents who had been at their institutions for more than 20 years (the last response category).

Among unit heads (Table 5B), the distribution of female respondents was fairly consistent, while over 65% of the male respondents were in the last two categories ("11 to 20 years" and "over 20 years"). There were from 4 to 5 percentage points more female unit head respondents in the first, third, and fourth categories than there were male respondents. There were essentially the same percentages of male and female respondents distributed in the second category. There were 17 percentage points more males distributed in the last category ("over 20 years").

Among deans (Table 5C), over 58% of the male respondents were distributed in the "11 to 20 years" and "over 20 years" categories. In comparison, about 40% of the female respondents fell in these categories.

Among administrators (Table 5D), the "over 20 years" category had the largest discrepancy between female and male respondents (14 percentage points). The distributions in the "11 to 20" category were almost the same, while those in the first three categories differed by 2 to 6 percentage points.

Table 5A

Phase II Demographics
Years at the Institution—Faculty
By Carnegie Classification and Gender

	From 1 to 3 years		From 4 to 6 years		From 7 to 10 years		From 11 to 20 years		More than 20 years	
	N*	%	N	%	N	%	N	%	N	%
Research I	**1,062**	**18.4%**	**1,288**	**22.3%**	**723**	**12.5%**	**1,454**	**25.1%**	**1,260**	**21.8%**
female	316	28.2%	274	24.5%	175	15.6%	264	23.6%	90	8.0%
male	722	16.1%	944	21.1%	522	11.7%	1,149	25.7%	1,134	25.4%
Research II	**393**	**19.9%**	**358**	**18.1%**	**274**	**13.9%**	**485**	**24.5%**	**466**	**23.6%**
female	147	25.9%	155	27.3%	90	15.8%	125	22.0%	51	9.0%
male	237	17.4%	196	14.4%	180	13.2%	345	25.3%	407	29.8%
Doctoral I	**290**	**17.7%**	**286**	**17.4%**	**248**	**15.1%**	**416**	**25.4%**	**399**	**24.3%**
female	111	25.2%	116	26.4%	74	16.8%	93	21.1%	46	10.5%
male	176	15.1%	162	13.9%	172	14.8%	307	26.4%	347	29.8%
Doctoral II	**286**	**21.5%**	**228**	**17.1%**	**207**	**15.5%**	**418**	**31.4%**	**194**	**14.6%**
female	107	25.9%	83	20.1%	74	17.9%	111	26.9%	38	9.2%
male	170	20.2%	129	15.3%	127	15.1%	273	32.4%	144	17.1%
Master's I	**1,301**	**19.6%**	**1,104**	**16.7%**	**1,024**	**15.4%**	**1,561**	**23.6%**	**1,638**	**24.7%**
female	547	25.4%	484	22.5%	394	18.3%	456	21.2%	272	12.6%
male	713	16.6%	598	13.9%	603	14.0%	1,067	24.8%	1,325	30.8%
Master's II	**156**	**34.0%**	**91**	**19.8%**	**69**	**15.0%**	**80**	**17.4%**	**63**	**13.7%**
female	63	37.7%	39	23.4%	27	16.2%	23	13.8%	15	9.0%
male	91	32.3%	48	17.0%	40	14.2%	56	19.9%	47	16.7%
Baccalaureate I	**634**	**22.3%**	**418**	**14.7%**	**419**	**14.7%**	**696**	**24.5%**	**677**	**23.8%**
female	304	32.7%	172	18.5%	165	17.8%	206	22.2%	82	8.8%
male	325	17.3%	243	12.9%	248	13.2%	479	25.5%	583	31.0%
Baccalaureate II	**419**	**25.3%**	**292**	**17.6%**	**238**	**14.4%**	**372**	**22.5%**	**334**	**20.2%**
female	203	30.9%	136	20.7%	116	17.7%	132	20.1%	69	10.5%
male	211	21.6%	156	16.0%	116	11.9%	232	23.8%	261	26.7%
Total	**4,541**	**20.3%**	**4,065**	**18.2%**	**3,202**	**14.3%**	**5,482**	**24.6%**	**5,031**	**22.5%**
female	1,798	27.9%	1,459	22.6%	1,115	17.3%	1,410	21.9%	663	10.3%
male	2,645	17.3%	2,476	16.2%	2,008	13.1%	3,908	25.6%	4,248	27.8%

* The number of males and females may not total the number of respondents in a given category since not all respondents indicated their gender.

Table 5B

Phase II Demographics
Years at the Institution—Unit Heads
By Carnegie Classification and Gender

	From 1 to 3 years		From 4 to 6 years		From 7 to 10 years		From 11 to 20 years		More than 20 years	
	N*	%	N	%	N	%	N	%	N	%
Research I	**51**	**11.4%**	**86**	**19.2%**	**38**	**8.5%**	**122**	**27.2%**	**152**	**33.9%**
female	8	15.7%	9	17.6%	6	11.8%	13	25.5%	15	29.4%
male	43	11.1%	72	18.6%	31	8.0%	107	27.6%	134	34.6%
Research II	**27**	**12.7%**	**16**	**7.5%**	**31**	**14.6%**	**73**	**34.4%**	**65**	**30.7%**
female	10	25.0%	2	5.0%	6	15.0%	14	35.0%	8	20.0%
male	16	9.6%	12	7.2%	25	15.0%	58	34.7%	56	33.5%
Doctoral I	**13**	**9.2%**	**18**	**12.7%**	**24**	**16.9%**	**51**	**35.9%**	**36**	**25.4%**
female	3	10.3%	5	17.2%	7	24.1%	11	37.9%	3	10.3%
male	10	8.8%	13	11.5%	17	15.0%	40	35.4%	33	29.2%
Doctoral II	**12**	**15.2%**	**11**	**13.9%**	**7**	**8.9%**	**29**	**36.7%**	**20**	**25.3%**
female	2	14.3%	1	7.1%	2	14.3%	6	42.9%	3	21.4%
male	2	3.6%	10	17.9%	5	8.9%	22	39.3%	17	30.4%
Master's I	**63**	**9.6%**	**66**	**10.0%**	**109**	**16.6%**	**217**	**33.0%**	**202**	**30.7%**
female	19	12.6%	17	11.3%	34	22.5%	56	37.1%	25	16.6%
male	43	8.7%	49	9.9%	74	14.9%	156	31.5%	174	35.1%
Master's II	**3**	**4.9%**	**11**	**18.0%**	**13**	**21.3%**	**15**	**24.6%**	**19**	**31.1%**
female	0	0.0%	4	20.0%	5	25.0%	6	30.0%	5	25.0%
male	3	7.3%	7	17.1%	8	19.5%	9	22.0%	14	34.1%
Baccalaureate I	**31**	**9.0%**	**33**	**9.6%**	**43**	**12.5%**	**111**	**32.3%**	**126**	**36.6%**
female	4	4.8%	11	13.3%	15	18.1%	40	48.2%	13	15.7%
male	7	3.0%	22	9.4%	27	11.5%	70	29.8%	109	46.4%
Baccalaureate II	**38**	**14.2%**	**39**	**14.6%**	**38**	**14.2%**	**95**	**35.6%**	**57**	**21.3%**
female	19	18.3%	15	14.4%	18	17.3%	35	33.7%	17	16.3%
male	14	9.1%	23	14.9%	20	13.0%	59	38.3%	38	24.7%
Total	**3238**	**10.8%**	**280**	**12.7%**	**303**	**13.7%**	**713**	**32.2%**	**677**	**30.6%**
female	65	13.2%	64	13.0%	93	18.9%	181	36.8%	89	18.1%
male	138	8.4%	208	12.6%	207	12.6%	521	31.6%	575	34.9%

* The number of males and females may not total the number of respondents in a given category since not all respondents indicated their gender.

Table 5C

Phase II Demographics
Years at the Institution—Deans
By Carnegie Classification and Gender

	From 1 to 3 years		From 4 to 6 years		From 7 to 10 years		From 11 to 20 years		More than 20 years	
	N*	%	N	%	N	%	N	%	N	%
Research I	**23**	**16.5%**	**34**	**24.5%**	**17**	**12.2%**	**32**	**23.0%**	**33**	**23.7%**
female	7	21.9%	9	28.1%	5	15.6%	7	21.9%	4	12.5%
male	16	15.1%	24	22.6%	12	11.3%	25	23.6%	29	27.4%
Research II	**14**	**15.4%**	**10**	**11.0%**	**13**	**14.3%**	**22**	**24.2%**	**32**	**35.2%**
female	6	30.0%	3	15.0%	1	5.0%	4	20.0%	6	30.0%
male	8	11.6%	7	10.1%	12	17.4%	17	24.6%	25	36.2%
Doctoral I	**5**	**8.3%**	**10**	**16.7%**	**11**	**18.3%**	**16**	**26.7%**	**18**	**30.0%**
female	0	0.0%	4	22.2%	2	11.1%	7	38.9%	5	27.8%
male	5	12.2%	6	14.6%	9	22.0%	8	19.5%	13	31.7%
Doctoral II	**6**	**15.8%**	**2**	**5.3%**	**7**	**18.4%**	**11**	**28.9%**	**12**	**31.6%**
female	1	14.3%	1	14.3%	2	28.6%	2	28.6%	1	14.3%
male	5	16.1%	1	3.2%	5	16.1%	9	29.0%	11	35.5%
Master's I	**24**	**13.0%**	**41**	**22.2%**	**21**	**11.4%**	**52**	**28.1%**	**47**	**25.4%**
female	9	19.1%	13	27.7%	10	21.3%	10	21.3%	5	10.6%
male	15	11.7%	27	21.1%	11	8.6%	35	27.3%	40	31.3%
Master's II	**5**	**35.7%**	**1**	**7.1%**	**2**	**14.3%**	**4**	**28.6%**	**2**	**14.3%**
female	1	25.0%	1	25.0%	0	0.0%	2	50.0%	0	0.0%
male	4	44.4%	0	0.0%	1	11.1%	2	22.2%	2	22.2%
Baccalaureate I	**10**	**18.2%**	**9**	**16.4%**	**4**	**7.3%**	**19**	**34.5%**	**13**	**23.6%**
female	6	33.3%	4	22.2%	0	0.0%	8	44.4%	0	0.0%
male	4	11.1%	5	13.9%	4	11.1%	11	30.6%	12	33.3%
Baccalaureate II	**8**	**14.5%**	**11**	**20.0%**	**5**	**9.1%**	**17**	**30.9%**	**14**	**25.5%**
female	7	29.2%	6	25.0%	4	16.7%	7	29.2%	0	0.0%
male	1	3.2%	5	16.1%	1	3.2%	10	32.3%	14	45.2%
Total	**95**	**14.9%**	**118**	**18.5%**	**80**	**12.6%**	**173**	**27.2%**	**171**	**26.8%**
female	37	21.8%	41	24.1%	24	14.1%	47	27.6%	21	12.4%
male	58	12.9%	75	16.6%	55	12.2%	117	25.9%	146	32.4%

* The number of males and females may not total the number of respondents in a given category since not all respondents indicated their gender.

Table 5D

Phase II Demographics
Years at the Institution—Administrators
By Carnegie Classification and Gender

	From 1 to 3 years		From 4 to 6 years		From 7 to 10 years		From 11 to 20 years		More than 20 years	
	N*	%	N	%	N	%	N	%	N	%
Research I	**19**	**16.0%**	**13**	**10.9%**	**20**	**16.8%**	**36**	**30.3%**	**31**	**26.1%**
female	9	28.1%	6	18.8%	8	25.0%	7	21.9%	2	6.3%
male	10	11.5%	7	8.0%	12	13.8%	29	33.3%	29	33.3%
Research II	**6**	**9.2%**	**8**	**12.3%**	**15**	**23.1%**	**21**	**32.3%**	**15**	**23.1%**
female	1	7.1%	1	7.1%	3	21.4%	7	50.0%	2	14.3%
male	5	10.0%	7	14.0%	11	22.0%	14	28.0%	13	26.0%
Doctoral I	**4**	**8.3%**	**7**	**14.6%**	**8**	**16.7%**	**17**	**35.4%**	**12**	**25.0%**
female	0	0.0%	2	16.7%	4	33.3%	5	41.7%	1	8.3%
male	4	11.8%	5	14.7%	4	11.8%	10	29.4%	11	32.4%
Doctoral II	**3**	**23.1%**	**0**	**0.0%**	**3**	**23.1%**	**5**	**38.5%**	**2**	**15.4%**
female	1	14.3%	0	0.0%	1	14.3%	4	57.1%	1	14.3%
male	2	33.3%	0	0.0%	2	33.3%	1	16.7%	1	16.7%
Master's I	**46**	**17.0%**	**38**	**14.1%**	**48**	**17.8%**	**83**	**30.7%**	**55**	**20.4%**
female	17	19.5%	14	16.1%	18	20.7%	24	27.6%	14	16.1%
male	28	15.6%	24	13.3%	29	16.1%	58	32.2%	41	22.8%
Master's II	**12**	**17.9%**	**14**	**20.9%**	**13**	**19.4%**	**19**	**28.4%**	**9**	**13.4%**
female	3	10.0%	8	26.7%	6	20.0%	12	40.0%	1	3.3%
male	8	22.2%	6	16.7%	7	19.4%	7	19.4%	8	22.2%
Baccalaureate I	**28**	**16.4%**	**29**	**17.0%**	**30**	**17.5%**	**52**	**30.4%**	**32**	**18.7%**
female	11	23.9%	9	19.6%	10	21.7%	14	30.4%	2	4.3%
male	16	12.9%	20	16.1%	20	16.1%	38	30.6%	30	24.2%
Baccalaureate II	**47**	**24.7%**	**38**	**20.0%**	**31**	**16.3%**	**39**	**20.5%**	**35**	**18.4%**
female	24	27.3%	15	17.0%	18	20.5%	19	21.6%	12	13.6%
male	22	22.4%	23	23.5%	13	13.3%	20	20.4%	20	20.4%
Total	**165**	**17.5%**	**147**	**15.6%**	**168**	**17.8%**	**272**	**28.8%**	**191**	**20.3%**
female	66	20.9%	55	17.4%	68	21.5%	92	29.1%	35	11.1%
male	95	15.4%	92	15.0%	98	15.9%	177	28.8%	153	24.9%

* The number of males and females may not total the number of respondents in a given category since not all respondents indicated their gender.

FACULTY RANK

Consistent with the data on the number of years at one's institution, a higher proportion of male faculty respondents were full professors, in comparison to female faculty, as shown in Table 6. Overall, 45% of female faculty respondents were at the assistant professor rank (with up to 55% in some Carnegie classification categories). In contrast, overall, 46% of the male faculty respondents were full professors (with 52% being the highest percentage of male faculty in any given category). With more females at the assistant professor level and approximately equal percentages of female and male associate professors, it is possible that the discrepancies in gender among full professors will be lessened over time, assuming that promotion and tenure decisions are fair and equitable.

TIME DEVOTED TO UNDERGRADUATES

There was considerable variability among faculty respondents in different Carnegie classification categories regarding the percent of time they reported devoting to undergraduates as defined in Phase II (the percentage of time devoted to undergraduate teaching combined with the percentage of time devoted to advising undergraduate students). Table 7 shows faculty responses organized by gender under each Carnegie Classification category.

Among Research I respondents, 81% reported devoting 1% to 50% of their time to teaching and advising undergraduate students; and among Research II respondents 74% of the responses fell into the 1% to 50% range. In comparison, 53% of Master's I, 68% of Master's II respondents, 76% of Baccalaureate I, and 82% of Baccalaureate II respondents reported devoting 51% to 100% of their time to teaching and advising undergraduate students.

Table 7 also shows that female and male respondents reported about the same percentage of time devoted to undergraduates. It is interesting to note that in comparing the percentages of male and female respondents in each category there was a consistent pattern of small differences of ten percentage points or less. The categories indicating less time devoted to undergraduates tended to account for a slightly higher percentage of male respondents than of female respondents. Similarly, the categories indicating more time devoted to undergraduates tended to account for a slightly higher percentage of female than male respondents.

Table 6

Phase II Demographics
Faculty Rank
By Carnegie Classification Category and Gender

	Assistant Professor		Associate Professor		Full Professor	
	N	%	N	%	N	%
Research I	**1148**	**21.3%**	**1679**	**31.2%**	**2557**	**47.5%**
female	349	35.5%	389	39.5%	246	25.0%
male	769	18.4%	1230	29.5%	2177	52.1%
Research II	**603**	**31.7%**	**574**	**30.2%**	**724**	**38.1%**
female	275	55.0%	155	31.0%	70	14.0%
male	306	23.0%	397	29.9%	626	47.1%
Doctoral I	**464**	**29.4%**	**557**	**35.3%**	**555**	**35.2%**
female	197	50.0%	136	34.5%	61	15.5%
male	252	22.4%	400	35.6%	472	42.0%
Doctoral II	**403**	**32.4%**	**452**	**36.4%**	**388**	**31.2%**
female	158	44.0%	143	39.8%	58	16.2%
male	226	28.3%	272	34.0%	302	37.8%
Master's I	**1859**	**30.7%**	**2030**	**33.5%**	**2171**	**35.8%**
female	827	44.6%	642	34.6%	384	20.7%
male	971	24.2%	1320	32.9%	1724	42.9%
Master's II	**178**	**41.3%**	**141**	**32.7%**	**112**	**26.0%**
female	80	52.3%	48	31.4%	25	16.3%
male	92	34.6%	91	34.2%	83	31.2%
Baccalaureate I	**822**	**31.0%**	**760**	**28.7%**	**1068**	**40.3%**
female	373	46.6%	263	32.8%	165	20.6%
male	431	24.0%	485	27.0%	877	48.9%
Baccalaureate II	**534**	**38.1%**	**420**	**29.9%**	**449**	**32.0%**
female	257	52.0%	152	30.8%	85	17.2%
male	270	30.5%	260	29.3%	356	40.2%
Total	**6011**	**29.1%**	**6613**	**32.0%**	**8024**	**38.9%**
female	2516	45.4%	1928	34.8%	1094	19.8%
male	3317	23.1%	4455	31.0%	6617	46.0%

* The number of males and females may not total the number of respondents in a given category since not all respondents indicated their gender.

Table 7

Phase II Demographics
Faculty Percent of Time Devoted to Undergraduates*
By Carnegie Classification Category and Gender

	0%		From 1% to 25%		From 26% to 50%		From 51% to 75%		From 76% to 100%	
	N	%	N	%	N	%	N	%	N	%
Research I	**95**	**2.2%**	**1719**	**39.3%**	**1718**	**39.3%**	**553**	**12.6%**	**289**	**6.6%**
female	15	1.8%	260	31.3%	316	38.0%	144	17.3%	96	11.6%
male	80	2.4%	1378	40.8%	1342	39.7%	392	11.6%	187	5.5%
Research II	**79**	**4.4%**	**494**	**27.5%**	**752**	**41.8%**	**330**	**18.4%**	**142**	**7.9%**
female	21	4.1%	128	24.7%	207	40.0%	107	20.7%	55	10.6%
male	56	4.6%	349	28.6%	520	42.7%	210	17.2%	84	6.9%
Doctoral I	**29**	**1.8%**	**304**	**18.8%**	**676**	**41.8%**	**416**	**25.7%**	**193**	**11.9%**
female	8	1.9%	81	19.4%	154	36.8%	104	24.9%	71	17.0%
male	20	1.8%	212	18.7%	486	42.9%	298	26.3%	118	10.4%
Doctoral II	**29**	**2.2%**	**281**	**21.3%**	**518**	**39.2%**	**333**	**25.2%**	**160**	**12.1%**
female	11	2.8%	77	19.4%	132	33.3%	105	26.5%	71	17.9%
male	18	2.2%	179	21.8%	345	42.0%	198	24.1%	82	10.0%
Master's I	**65**	**1.0%**	**786**	**12.4%**	**2142**	**33.8%**	**2008**	**31.7%**	**1330**	**21.0%**
female	26	1.3%	235	11.6%	655	32.3%	643	31.8%	466	23.0%
male	36	0.9%	518	12.8%	1412	34.9%	1275	31.5%	809	20.0%
Master's II	**0**	**0.0%**	**37**	**8.0%**	**116**	**25.2%**	**176**	**38.3%**	**131**	**28.5%**
female	0	0.0%	16	9.7%	37	22.4%	62	37.6%	50	30.3%
male	0	0.0%	20	7.2%	75	27.2%	108	39.1%	73	26.4%
Baccalaureate I	**1**	**0.0%**	**70**	**2.4%**	**627**	**21.9%**	**1468**	**51.3%**	**696**	**24.3%**
female	0	0.0%	15	1.6%	203	22.0%	460	49.8%	246	26.6%
male	1	0.1%	53	2.9%	402	21.7%	965	52.1%	430	23.2%
Baccalaureate II	**2**	**0.1%**	**58**	**3.5%**	**246**	**15.1%**	**597**	**36.5%**	**731**	**44.7%**
female	1	0.2%	29	4.5%	94	14.7%	227	35.5%	288	45.1%
male	1	0.1%	28	2.9%	147	15.4%	357	37.5%	419	44.0%
Total	**300**	**1.5%**	**3749**	**18.4%**	**6795**	**33.3%**	**5881**	**28.8%**	**3672**	**18.0%**
female	82	1.4%	841	14.2%	1798	30.4%	1852	31.3%	1343	22.7%
male	212	1.5%	2737	20.0%	4729	34.6%	3803	27.8%	2202	16.1%

*A combination of the percent of time devoted to undergraduate teaching and to advising undergraduate students.

SUMMARY

In summary, many of the demographic data vary by Carnegie classification and suggest that a higher percentage of females than males are earlier in their teaching careers and hold appointments in lower faculty ranks. It will be important to keep these distributions in mind when interpreting the findings of this study on the perceived relative importance of research and undergraduate teaching.

PART III

STUDY FINDINGS

SECTION 1

COMPARISONS OF PHASE I AND PHASE II RESULTS

Since only institutions in the four Research and Doctoral Carnegie classification categories were surveyed in Phase I, comparisons are only possible among respondents in those categories. Table 1 (Part II) identifies the phase of the study in which institutions participated and their classification according to the 1994 edition of the Carnegie Foundation's schema(see Appendix). For purposes of comparing Phase I and II responses, institutions were grouped based on their classification category at the time of the Phase I study. This is important because a number of institutions were reclassified in the 1994 publication. In most cases, universities had been reclassified into the next category (for example, Research II reclassified to Research I). Changes among participating institutions included the following: six Research II institutions became Research I institutions, one Doctoral I institution was reclassified as a Research II institution, two Doctoral II institutions became Research II institutions, one Doctoral II institution was reclassified as a Doctoral I institutions, and one Doctoral II institution was reclassified as a Master's I institution (The Carnegie Foundation, 1994).

There do not appear to be any substantial differences in the general make-up of the two comparison groups. That is, the individual institutions in the Research and Doctoral categories in the two phases are comparable with respect to size, overall mission, and reputation. The total number of respondents in the four Research and Doctoral categories of institutions was 22,411 in Phase I and 12,273 in Phase II. The Tukey-Kramer studentized range test was performed for all pairwise comparisons in this study. This multiple comparison procedure has more power than standard *t-tests*, particularly with unequal cell sizes, yielding *honestly significant differences* (HSD). Based on these statistical measures, there was a statistically significant difference between the way respondents in the different phases of this study perceived their institutions (alpha = .05) as shown in Table 8.

Table 8

Is Going, *Should Go*, and Stress Index Means and Std Phase I and Phase II Role within Carnegie Classification

	Total		Is Going			Should Go			Stress Index		
			I	II		I	II		I	II	
	N	N	Mean Std	Mean Std	Diff.	Mean Std	Mean Std	Diff.	Mean Std	Mean Std	Diff.
Research I	**10,239**	**6,481**	**1.531.85**	**0.572.10**	**0.96***	**0.191.54**	**0.011.52**	**0.18***	**-1.342.54**	**-0.562.71**	**-0.78***
Faculty	9,203	5,760	1.59 1.85	0.64 2.12	0.95*	0.18 1.55	0.02 1.54	0.16*	-1.40 2.58	-0.62 2.76	-0.78*
Unit Head	761	444	0.98 1.83	-0.11 1.85	1.09*	0.31 1.45	0.08 1.35	0.23*	-0.67 2.30	0.19 2.23	-0.86*
Dean	173	151	1.04 1.76	-0.02 1.82	1.06*	0.34 1.42	-0.19 1.33	0.53	-0.70 2.18	-0.17 2.09	-0.53*
Administrator	102	126	1.24 1.62	0.50 1.66	0.74*	-0.18 1.21	-0.43 1.53	0.25	-1.41 1.79	-0.93 2.04	-0.48
Research II	**4,825**	**2,470**	**1.441.95**	**0.192.17**	**1.25***	**0.151.61**	**-0.251.68**	**0.40***	**-1.292.73**	**-0.452.97**	**-0.84***
Faculty	4,358	2,077	1.49 1.95	0.24 2.20	1.25*	0.16 1.62	-0.24 1.70	0.40*	-1.34 2.74	-0.48 3.05	-0.86*
Unit Head	319	237	0.87 1.97	-0.01 2.00	0.88*	0.28 1.49	-0.29 1.71	0.57*	-0.59 2.62	-0.28 2.75	-0.31
Dean	110	94	1.31 1.72	-0.15 1.99	1.46*	-0.17 1.55	-0.29 1.27	0.12	-1.48 2.47	-0.14 2.11	-1.34*
Administrator	38	62	0.50 1.59	-0.15 1.86	0.65	-0.16 1.35	-0.61 1.56	0.45	-0.66 2.07	-0.47 2.09	-0.19
Doctoral I	**4,702**	**1,876**	**1.351.94**	**0.522.14**	**0.83***	**-0.221.68**	**-0.551.69**	**0.33***	**-1.572.78**	**-1.072.89**	**-0.50***
Faculty	4,134	1,630	1.39 1.96	0.54 2.17	0.85*	-0.24 1.70	-0.56 1.73	0.32*	-1.63 2.84	-1.10 2.98	-0.53*
Unit Head	385	139	1.21 1.70	0.54 1.88	0.67*	0.09 1.44	-0.35 1.48	0.44*	-1.12 2.19	-0.89 2.36	-0.23
Dean	104	60	1.03 1.71	0.48 1.68	0.55*	0.15 1.46	-0.37 1.30	0.52*	-0.88 2.21	-0.85 1.90	-0.03
Administrator	79	47	0.05 1.97	0.02 2.11	0.03	-1.11 1.52	-1.00 1.37	-0.11	-1.16 1.98	-1.02 2.13	-0.14
Doctoral II	**2,645**	**1,446**	**0.881.99**	**0.482.14**	**0.40***	**-0.321.65**	**-0.531.69**	**0.21***	**-1.202.61**	**-1.012.79**	**-0.19***
Faculty	2,267	1,315	0.93 2.01	0.52 2.16	0.41*	-0.31 1.66	-0.53 1.72	0.22*	-1.25 2.68	-1.05 2.86	-0.20*
Unit Head	253	79	0.70 1.86	0.23 1.92	0.47	-0.24 1.52	-0.44 1.47	0.20	-0.94 2.24	-0.67 1.99	-0.27
Dean	78	39	0.23 1.80	-0.33 1.78	0.56	-0.38 1.59	-0.67 1.18	0.29	-0.62 1.65	-0.33 1.91	-0.29
Administrator	47	13	0.34 1.84	0.15 1.82	0.19	-0.94 1.59	-0.54 1.39	-0.40	-1.28 2.29	-0.69 1.55	-0.59
Total	**22,411**	**12,273**	**1.401.92**	**0.482.13**	**0.92***	**0.041.61**	**-0.191.62**	**0.23***	**-1.362.64**	**-0.672.81**	**-0.69***
Faculty	19,962	10,782	1.45 1.92	0.53 2.15	0.92*	0.03 1.62	-0.18 1.64	0.21*	-1.42 2.69	-0.72 2.87	-0.70*
Unit Head	1,718	899	1.00 1.81	0.05 1.92	0.95*	0.19 1.47	-0.13 1.50	0.32*	-0.81 2.29	-0.18 2.41	-0.63*
Dean	465	344	0.92 1.77	0.00 1.85	0.92*	-0.06 1.48	-0.30 1.29	0.24*	-0.98 2.10	-0.30 2.05	-0.68*
Administrator	266	248	0.62 1.83	0.23 1.82	0.39*	-0.59 1.46	-0.59 1.51	0.00	-1.21 1.99	-0.82 2.05	-0.39*

Note: - sign indicates a point on the teaching side of the continuum.
* Indicates statistically significant difference at the .05 level.

Nature of the Differences

Overall differences reflect the influence of relatively large numbers of faculty among the respondents in each Carnegie classification category. As shown in Table 8, faculty most consistently among the respondent groups showed statistically significant differences between Phases I and II means. Differences in faculty *is going* item means were statistically significant in all four Carnegie classification categories that were surveyed in both phases. In all instances respondents reported their institutions less research-oriented in Phase II than in Phase I. The differences in unit head and dean *is going* item means were statistically significant in three of the four Carnegie classification categories, Doctoral II institutions being the exception. The difference in administrator *is going* item means were statistically significant in Research I and Research II categories but not in Doctoral I or Doctoral II categories. Figures 2 A–D (see Appendix) illustrate frequency distributions for these responses.

In Research I and Research II categories, faculty and unit heads' Phase I and II *should go* item means were significantly different. There were statistically significant differences between Phase I and Phase II *should go* item means for faculty, unit heads, and deans among Doctoral I respondents. Only faculty among Doctoral II groups had statistically significant differences between Phase I and Phase II *should go* item means.

The Stress Index

In Phase I of the national study a calculation was devised to represent the tension in a given population or respondent group arising from discrepancies between perceptions of the direction the institution *is going* and the direction respondents believe it *should go*. In essence, the Stress Index reflects the tension that exists between perceptions of future realities (the direction the institution *is going)* and future preferences (the direction the institution *should go*). The Stress Index is calculated by subtracting the *is going* item mean from the *should go* item mean. Because these mean ratings typically have standard deviations between 1.5 and 2.0, a Stress Index below 1.5 may indicate little actual tension or "stress." On the other hand, those over 2.0 may suggest considerable conflict between the culture of the institution and the preferences of a particular group of individuals.

In the Research I and Research II categories, all groups except administrators had Phase I and II Stress Index means that were significantly different. In the Doctoral I

category, only the faculty Stress Index was statistically significantly different between Phase I and Phase II. No Doctoral II groups had statistically significant differences between Phase I and Phase II Stress Index means. When there were statistically significant differences, Phase II stress indexes were smaller than Phase I, which indicates that there was less discrepancy between respondents' perceived future reality (the direction the institution *is going*) and their future preference (the direction the institution *should go*) in Phase II. This indicates a convergence of institutional and individual preferences.

It is important to note that while many of the differences between Phase I and Phase II means are statistically significant, some of the absolute differences cause us to question the practical significance of these differences. In ten of thirty-five cases (Research and Doctoral categories) there is a difference of less than .50, a rough rule of practical significance. This "rule of thumb" was formulated based on reviewing the differences in frequency distributions behind these means and considering the magnitude of differences that seemed noticeable and important given the nine point scale used in the study. Seven of these cases were related to the *should go* item means. This suggests that respondents in each group in both phases had roughly the same average perception of the direction their institutions *should go*. Two of the remaining three cases were the differences in Doctoral II faculty means and, in turn, overall means, for the *is going* item. The overall stress means in the Doctoral I category round out this group of ten.

In twenty-five of thirty-five comparisons, the statistically significant differences are .50 or greater. In other words, most of the statistically significant differences in *is going* item means and Stress Index can be judged to be practically significant.

Conclusions and Implications

The statistically significant differences between Phase I and II responses indicate that Phase II respondents reported that their institution *is going* in a direction that emphasizes research less strongly than Phase I respondents reported. In addition, statistically significant *should go* item mean comparisons indicate that Phase II respondents more consistently chose *equal importance* or a point on the teaching side of the continuum than Phase I respondents.

Phases I and II surveyed different institutions; however, the research universities in the two phases were comparable. Based on analysis of these data, it is possible to

hypothesize that there has been a general change in higher education among research-oriented institutions. This change can be described as a shift in respondents' perceptions of the direction their institutions currently are going (i.e., less relative importance of research) and the direction they believe their institutions *should go* (i.e., equal importance or a greater relative importance for teaching). The extent of these shifts is graphically illustrated by the frequency distributions and mean ratings shown in Figures 2A–D (see Appendix).

SUMMARY

In summary, comparisons of Phase I and Phase II results suggest that there are perceptible differences in the way respondents in the same Carnegie classification category institutions reacted to the survey in the two administrations. These differences suggest a convergence of individual preferences and institutional emphases vis à vis the relative importance or research and undergraduate teaching. They also suggest that at research and other doctoral institutions, a shift in institutional priorities has taken place from a strong emphasis on research to a more balanced emphasis between research and undergraduate teaching.

PART III

STUDY FINDINGS

SECTION 2

PHASE II *IS GOING* AND *SHOULD GO* ITEM COMPARISONS

This study's second set of findings describes the patterns of Phase II respondents' perceptions of the direction their institutions *is going* and the direction it *should go* vis à vis the relative importance of research and undergraduate teaching. Also part of this set of findings are the patterns of the Stress Index, which provides a measure of the tension between respondents' perception of future reality and future preference. In general, these findings confirm the expected shift of relative importance from the research side of the continuum to the teaching side when comparing graduate research institutions (Carnegie Research and Doctoral categories) to undergraduate teaching institutions (Carnegie Master's and Baccalaureate categories). However, there are some interesting similarities and differences among respondents that suggest a richer and more complicated reality in higher education institutions.

In this section, findings are discussed for all four respondent groups—faculty, unit heads (that is, those responsible for academic departments or programs), academic deans, and other academic administrators, as well as for all eight Carnegie classification categories. This section considers these findings by examining:

- together the *is going* and *should go* item responses of those in each of the four respondent groups by Carnegie classification category;
- the responses of those in the same respondent group in different categories of Carnegie classification institutions; and
- the responses of those in the four respondent groups within each Carnegie classification category.

The *Is going* and *Should go* Item Responses

Item responses were reported on a nine point continuum (from 4 to 1 on the teaching side, 0 or equal importance, and from 1 to 4 on the research side). When consulting the tables, note that - sign (minus) indicates a point on the teaching side of the continuum. Table 9 shows the means and standard deviations for the *is going* and *should go* items. Figures 3A–D (Appendix) show the distribution of responses for each respondent group across the eight Carnegie classification categories.

In general, both the data in Table 9 and the frequency distributions in Figures 3A–D (Appendix) illustrate a predictable trend as Carnegie classification categories vary from Research I to Baccalaureate II institutions. As one moves along the category continuum, more respondents attributed greater relative importance to undergraduate teaching on both *is going* and *should go* items. Except for faculty respondents, the small numbers of respondents in particular groups mean that there is less confidence that their responses can be generalized to the larger population. This is especially true for deans.

Faculty responses. Faculty respondents at institutions in the four Research and Doctoral categories had very similar response patterns (Appendix Figure 3A). These patterns indicate that most respondents perceived that greater relative importance of research best described the direction their institution *is going*. However, even among Research and Doctoral respondents, there were many who perceived equal importance or greater relative importance of undergraduate teaching as describing the direction their institution *is going*. Among Master's and Baccalaureate respondents, equal importance or greater relative importance of undergraduate teaching seemed to be the predominant perceptions. The standard deviations for faculty responses to the *is going* item shown in Table 9 were all quite high, ranging from 1.7 to 2.2, which is reflected in the "flatness" of many of the distributions in Figure 3A (see Appendix). This suggests a good deal of variability in responses. That is, faculty perceptions about the direction their institution *is going* were quite diverse in all but the Baccalaureate II category.

The modal response to the *should go* item from Research and Doctoral respondents indicated that faculty at these institutions favor an equal importance of research and undergraduate teaching. An interesting bi-modal pattern began to be evident in the Research II respondents and was most evident in the Baccalaureate I responses. In this distribution, one group tended to favor the equal importance response, while

Table 9
Is Going, Should Go, and Stress Index
Phase II Role within Carnegie Classification

	Total N	Is Going Mean	Is Going Std	Should Go Mean	Should Go Std	Stress Index Mean	Stress Index Std
Research I	**6481**	**0.6**	**2.1**	**0.0**	**1.5**	**-0.6**	**2.7**
Faculty	5760	0.6	2.1	0.0	1.5	0.6	2.8
Unit Head	444	-0.1	1.9	0.1	1.4	-0.2	2.2
Dean	151	-0.0	1.8	-0.2	1.3	0.2	2.1
Administrator	126	0.5	1.7	-0.4	1.5	0.9	2.0
Research II	**2470**	**0.2**	**2.2**	**-0.3**	**1.7**	**-0.4**	**3.0**
Faculty	2077	0.2	2.2	-0.2	1.7	0.4	3.1
Unit Head	237	-0.0	2.0	-0.3	1.7	0.3	2.7
Dean	94	-0.1	2.0	-0.3	1.3	0.2	2.1
Administrator	62	-0.1	1.9	-0.6	1.6	0.5	2.1
Doctoral I	**1876**	**0.5**	**2.1**	**-0.6**	**1.7**	**-1.1**	**2.9**
Faculty	1630	0.5	2.2	-0.6	1.7	1.1	3.0
Unit Head	139	0.5	1.9	-0.4	1.5	0.9	2.4
Dean	60	0.5	1.7	-0.4	1.3	0.9	1.9
Administrator	47	0.0	2.1	-1.0	1.4	1.0	2.1
Doctoral II	**1446**	**0.5**	**2.1**	**-0.5**	**1.7**	**-1.0**	**2.8**
Faculty	1315	0.5	2.2	-0.5	1.7	1.0	2.9
Unit Head	79	0.2	1.9	-0.4	1.5	0.6	2.0
Dean	39	-0.3	1.8	-0.7	1.2	0.4	1.9
Administrator	13	0.2	1.8	-0.5	1.4	0.7	1.5
Master's I	**7634**	**-0.2**	**2.2**	**-1.1**	**1.7**	**-0.8**	**2.8**
Faculty	6531	-0.2	2.2	-1.0	1.7	0.8	2.9
Unit Head	655	-0.3	2.0	-1.2	1.6	0.9	2.5
Dean	185	-0.7	1.8	-1.2	1.4	0.5	2.0
Administrator	263	-0.9	1.8	-1.6	1.4	0.7	2.0
Master's II	**595**	**-1.1**	**1.9**	**-1.5**	**1.5**	**-0.4**	**2.2**
Faculty	459	-1.1	1.9	-1.4	1.6	0.3	2.3
Unit Head	59	-1.1	2.0	-2.1	1.4	1.0	2.1
Dean	12	-1.2	1.9	-1.0	1.7	0.2	0.9
Administrator	65	-1.5	1.5	-2.0	1.3	0.5	1.6
Baccalaureate I	**3240**	**-0.4**	**2.0**	**-1.2**	**1.4**	**-0.8**	**2.3**
Faculty	2710	-0.3	2.0	-1.1	1.4	0.8	2.3
Unit Head	321	-0.2	2.0	-1.1	1.4	0.9	2.4
Dean	46	-0.7	1.5	-1.6	1.0	0.9	1.7
Administrator	163	-0.9	1.7	-1.7	1.4	0.8	1.7
Baccalaureate II	**2099**	**-1.9**	**1.7**	**-1.8**	**1.5**	**0.1**	**2.0**
Faculty	1605	-1.9	1.7	-1.8	1.5	-0.1	2.1
Unit Head	259	-1.8	1.8	-1.9	1.3	0.1	1.9
Dean	53	-2.2	1.3	-2.2	1.1	0.0	1.4
Administrator	182	-2.0	1.4	-1.9	1.4	-0.1	1.5

another chose point 2 on the teaching side of the continuum to describe the relative importance of undergraduate teaching. The standard deviations for faculty responses to the *should go* item shown in Table 9 were lower than those for the *is going* item, ranging from 1.5 to 1.7, which is reflected in the "peaked" appearance of many of the distributions in Figure 3A.

The highest Stress Indexes were evident for Doctoral I and Doctoral II faculty respondents. Among these respondents, the discrepancy was about 1.0, suggesting that less relative importance of research was desired. While there were small Stress Indexes for Research II respondents, Master's II respondents, and Baccalaureate II respondents, the frequency distributions suggest that only for the last two categories does a small Stress Index indicate congruence between the *is going* and *should go* item responses. For the Research II respondents a small Stress Index is merely a statistical artifact of the distributions, that is, very flat and very peaked curves. Only by examining the underlying distribution of responses can the meaning of the Stress Index be clear; therefore, the Stress Index, per se, must be used with caution as an indication of congruence or lack of congruence between respondents' perceptions (*is going* item) and preferences (*should go* item).

Unit head responses. For unit head respondents, the graphs in Figure 3B (Appendix) show that there was wide variation in the pattern of responses. For example, while Master's II and Baccalaureate II responses to the *is going* item were predominately on the teaching side of the continuum, most of the other sets of responses were spread across the continuum. Even among the Doctoral I respondents, about half were on the research side and half were at equal importance or on the teaching side of the scale. While the standard deviations for unit heads' responses to the *is going* item shown in Table 9 were not as high or diverse as for faculty (ranging from 1.8 to 2.0, a rather narrow band), there was still a noticeable "flatness" in some distributions (Research II and Master's I), which suggests diverse perceptions.

Unit heads' responses to the *should go* item also showed a substantial peak at the equal importance point on the continuum in the Research and Doctoral categories. Master's I and Baccalaureate I responses showed a bi-modal distribution, and Master's I and Baccalaureate I responses showed a clear preference for undergraduate teaching. The standard deviations for unit head responses to the *should go* item shown in Table 9 had a somewhat wider range than for faculty—from 1.3 to 1.7. This is reflected in the greater variety of distributions in Figure 3B (see Appendix).

Dean responses. Because the number of dean respondents in some Carnegie classification categories was small, the graphs in Figure 3C (Appendix) must be interpreted with caution. Even so, the difference in the pattern of responses of those in the Research and Doctoral and those in the Master's and Baccalaureate categories were generally consistent with those of other groups. That is, there was greater relative importance of undergraduate teaching evidenced by the response patterns in the Master's and Baccalaureate categories and a more diffuse pattern, with somewhat more responses on the research side of the continuum, in the Research and Doctoral categories. There was a wide range of standard deviations on this item as well, from 1.3 for Baccalaureate II respondents to 2.0 for Research II respondents, which is reflected in the variety of frequency distribution patterns in Figure 3C.

The deans' responses at Research and Doctoral institutions to the *should go* item also showed a strong peak at the equal importance point on the continuum. Starting with Doctoral II and continuing though Master's II categories, responses showed a bi-modal distribution. The standard deviations for dean responses to the *should go* item shown in Table 9 were quite small and in a narrow range, except for the Master's II respondents, ranging from 1.0 to 1.4.

Administrator responses. The small number of administrator respondents in some Carnegie classification categories means that the graphs in Figure 3D (see Appendix) also must be interpreted with caution. Even so, the difference in the pattern of administrators' *is going* item responses at Research and Doctoral institutions and those of Master's and Baccalaureate administrators were generally consistent with other respondent groups. That is, the response patterns in the Master's and Baccalaureate categories evidenced greater relative importance of undergraduate teaching, while responses in the Research and Doctoral categories were more diffuse, with somewhat more responses on the research side of the continuum. There was quite a wide range of standard deviations on this item as well—from 1.4 for Baccalaureate II respondents to 2.1 for Doctoral I respondents—which is reflected in the wide variety of frequency distribution patterns in Figure 3D.

The administrators' responses to the *should go* item also reflected a substantial peak at the equal importance point on the continuum in the Research and Doctoral institutions. Starting with Research I and continuing though Doctoral II, with an echo in Baccalaureate II, responses showed a bi-modal distribution. The standard

deviations for administrator responses to the *should go* item shown in Table 9 were within a narrow band—ranging from 1.3 to 1.6.

Even though there are noticeable differences in the frequency distribution patterns across categories, there are also similarities in some of the distributions. These similarities and differences in perceptions among the same group of respondents at different categories of institutions and among different groups of respondents at the same type of institution are discussed in the following sections.

Similarities in Perceptions—
Respondent Groups at Different Types of Institutions

Based on the use of a general linear model, it can be concluded that the variability among respondent groups by Carnegie classification category was statistically significant (p=.0001). However, Carnegie classification explains only 10% or 11% of the variability in the *is going* and *should go* item means, respectively. To better understand the differences and similarities, the mean ratings of the respondent groups were compared for pairs of institutional categories, for example, faculty at Research I and Research II institutions. The Tukey-Kramer studentized range test was performed for all pairwise comparisons. This multiple comparison procedure controls the Type 1 error rate and performs well with unequal cell sizes.

***Is going* item comparisons**. In most cases, respondents in the same group (that is, full-time faculty, unit heads, academic deans, and other academic administrators), but in different Carnegie classification categories, had significantly different perceptions of the direction their institution *is going* (Table 10). As expected, in comparison to those in Master's and Baccalaureate institutions, respondents in Research and Doctoral institutions, on average, indicated that their institution *is going* in a direction that assigns more importance to research than to undergraduate teaching. As Table 10 illustrates, there are interesting similarities in respondents' perceptions of the direction their institution *is going* among the various categories of Research and Doctoral institutions and between those in Master's I and Baccalaureate I institutions. Mean comparisons are displayed graphically in Figures 4 and 5 (see Appendix). Interesting findings include the following:

- Most of the faculty comparisons were statistically significantly different (25 of 28).

Table 10
Is Going Comparisons
Carnegie Classification Categories by Respondent Groups

Category Pairs	Faculty	Unit Head	Dean	Administrator
Research I and Research II	*			
Research I and Doctoral I		*		
Research I and Doctoral II				
Research I and Master's I	*		*	*
Research I and Master's II	*	*		*
Research I and Baccalaureate I	*			*
Research I and Baccalaureate II	*	*	*	*
Research II and Doctoral I	*			
Research II and Doctoral II	*			
Research II and Master's I	*			*
Research II and Master's II	*	*		*
Research II and Baccalaureate I	*			
Research II and Baccalaureate II	*	*	*	*
Doctoral I and Doctoral II				
Doctoral I and Master's I	*	*	*	*
Doctoral I and Master's II	*	*		*
Doctoral I and Baccalaureate I	*	*	*	*
Doctoral I and Baccalaureate II	*	*	*	*
Doctoral II and Master's I	*			
Doctoral II and Master's II	*	*		*
Doctoral II and Baccalaureate I	*			
Doctoral II and Baccalaureate II	*	*	*	*
Master's I and Master's II	*			
Master's I and Baccalaureate I	*			
Master's I and Baccalaureate II	*	*	*	*
Master's II and Baccalaureate I	*	*		
Master's II and Baccalaureate II	*			
Baccalaureate I Baccalaureate II	*	*	*	*
TOTAL similar	3	14	19	13
*different	25	14	9	15

* Indicates statistically significant difference at the .05 level.

- About half of the unit head and administrator comparisons were statistically significantly different (14 and 15 of 28, respectively).
- Only 9 of 28 comparisons of deans' *is going* item means were statistically significantly different.
- The only comparisons of faculty *is going* item means that were similar (not statistically significantly different) were Doctoral I and Doctoral II with each other and with Research I faculty.
- Unit heads and administrators had similar patterns of statistical difference. Twelve common comparisons had statistically significant differences, and eleven common pairs were similar, that is, not significantly different.
- Among deans, comparisons including Baccalaureate II respondents accounted for 6 of the 9 statistically significant differences. Master's I paired with Research I and Doctoral I accounted for two other differences, and the Doctoral II and Baccalaureate II pair accounted for the final statistically significant difference among pairs of deans' responses.

***Should go* item comparisons**. Looking at respondent groups by Carnegie classification, Table 11 shows that between 12 and 26 of the 28 comparisons of *should go* item means were statistically significantly different. While the majority of comparisons indicated differences in perceptions, from 2 to 16 of the comparisons were similar, that is their differences were not statistically significant. Interesting findings include the following:

- There was one more statistically significant difference among faculty *should go* item comparisons (26) than among *is going* comparisons (25). The only "similar" comparisons were Doctoral I and Doctoral II and Master's II and Baccalaureate I.
- There were seven more statistically significant differences in unit head comparisons on the *should go* item (21) than there were on the *is going* item (14). Five of the seven were among Research and Doctoral respondents. The other two were Master's and Baccalaureate comparisons.
- Deans and administrators both had 16 "similar" comparisons and 12 in which the differences were statistically significant.

Table 11
Should Go Comparisons
Carnegie Classification Categories by Respondent Groups

Category Pairs	Faculty	Unit Head	Dean	Administrator
Research I and Research II	*	*		
Research I and Doctoral I	*			
Research I and Doctoral II	*			
Research I and Master's I	*	*	*	*
Research I and Master's II	*	*		*
Research I and Baccalaureate I	*	*	*	*
Research I and Baccalaureate II	*	*	*	*
Research II and Doctoral I	*			
Research II and Doctoral II	*			
Research II and Master's I	*	*	*	*
Research II and Master's II	*	*		*
Research II and Baccalaureate I	*	*	*	*
Research II and Baccalaureate II	*	*	*	*
Doctoral I and Doctoral II				
Doctoral I and Master's I	*	*	*	
Doctoral I and Master's II	*	*		*
Doctoral I and Baccalaureate I	*	*	*	
Doctoral I and Baccalaureate II	*	*	*	*
Doctoral II and Master's I	*	*		
Doctoral II and Master's II	*	*		*
Doctoral II and Baccalaureate I	*	*	*	
Doctoral II and Baccalaureate II	*	*	*	*
Master's I and Master's II	*	*		
Master's I and Baccalaureate I	*			
Master's I and Baccalaureate II	*	*	*	
Master's II and Baccalaureate I		*		
Master's II and Baccalaureate II	*			
Baccalaureate I Baccalaureate II	*	*		
TOTAL similar	2	7	16	16
*different	26	21	12	12

* Indicates statistically significant difference at the .05 level.

- For deans and administrators, 9 of the 12 statistically significant differences on the *should go* item were between Research or Doctoral and Master's or Baccalaureate item means.
- All six Research and Doctoral pairs of dean and administrators responses on the *should go* item were "similar," that is, not statistically significantly different.
- Five or six of the Master's and Baccalaureate comparisons were not statistically significantly different for deans and administrators, respectively.

In summary, there were distinct contrasts in the way those in different institutions perceived the relative importance of research and undergraduate teaching. In particular, faculty at different types of institutions, as described by the Carnegie classification categories, had significantly different perspectives concerning the direction their institution *is going* and the direction it *should go* vis à vis the relative importance of research and undergraduate teaching. For other respondent groups, significant differences in perception were most prevalent among those at institutions with clearly different missions, that is, research universities (research and doctoral institutions) in comparison to teaching colleges (Master's and Baccalaureate institutions). Given these patterns of similarities and differences among the same groups at different types of institutions, the next question is, what are the patterns of similarity and difference among different groups within the same type of institution?

Similarities in Perceptions—
Different Roles in the Same Type of Institution

A general linear model was used to test the significance of the differences in groups' item means within Carnegie categories. The results indicate that there were statistically significant differences among groups of respondents (p=.0001); however, many variables affect respondents' perceptions—Carnegie classification being only one such variable. To better understand the differences and similarities, the means of the four respondent groups within each Carnegie classification category were compared—for example, Research I faculty and unit heads. These comparisons are displayed graphically in Figures 4 and 5 (see Appendix). The Tukey-Kramer studentized range test determines *honestly significant difference* s(HSD) for pairwise comparisons and was used to measure statistical significance in this study. A closer

look at the differences between item means for respondent groups within Carnegie classification categories revealed some interesting patterns.

***Is going* item comparisons.** In general, there were few statistically significant differences among those in the various respondent groups within the same Carnegie classification category (see Table 12). Respondent groups in the Research I and Master's I categories had the most statistically significant differences in *is going* item means (3 of 6). In Research II, Doctoral I, Doctoral II, Master's II, and Baccalaureate II, there were no differences in means that were statistically significant, suggesting a good amount of consistency of perceptions among those within these categories concerning the direction their institution *is going*.

***Should go* item comparisons**. A similar pattern existed in the comparisons of different respondent groups' perceptions of the direction their institution *should go*. That is, 40 of 48 comparisons were similar (see Table 13). Every comparison in the Research II, Doctoral I, Doctoral II, and Baccalaureate II categories was similar, and four of the six were similar in the remaining categories.

In summary, while there are differences among groups of respondents across categories and between those in different respondent groups within categories, these differences explain little of the overall variability in the study results. In fact, looking at the overall picture, except for faculty across institutions, there is a surprising degree of similarity in respondents' perceptions. That is, given the fact that the differences in *is going* and *should go* item means are generally 1.1 or less, and that standard deviations for the *is going* and *should go* item means range from 1.0 to 2.0, there appears to be evidence of considerable overlap in perceptions among those in different respondent groups under each Carnegie classification category. Findings can be summarized as follows:

- There is a generally similar pattern of statistically significant differences within Carnegie classification categories for both *is going* and *should go* item means.
- The means for both items in all Research II, Doctoral I, Doctoral II, and Baccalaureate II comparisons were similar, that is, not statistically significantly different.
- The other categories had two or three statistically significant differences for one or both of the items.

Table 12
Is Going Item Comparisons
Carnegie Classification Categories by Respondent Groups

Respondent Group Pairs		R-I	R-II	D-I	D-II	M-I	M-II	B-I	B-II
Faculty and Unit Head		*							
Faculty and Dean		*				*			
Faculty and Administrator						*		*	
Unit Head and Dean									
Unit Head and Administrator		*				*		*	
Dean and Administrator									
TOTAL	similar	3	6	6	6	3	6	4	6
	*different	3	0	0	0	3	0	2	0

Table 13
Should Go Item Comparisons
Carnegie Classification Categories by Respondent Groups

Respondent Group Pairs		R-I	R-II	D-I	D-II	M-I	M-II	B-I	B-II
Faculty and Unit Head							*		
Faculty and Dean									
Faculty and Administrator		*				*	*	*	
Unit Head and Dean									
Unit Head and Administrator		*						*	
Dean and Administrator						*			
TOTAL	similar	4	6	6	6	4	4	4	6
	*different	2	0	0	0	2	2	2	0

*Indicates statistically significant difference at the .05 level.

SUMMARY

From these findings we can conclude that there was considerable similarity in respondents' perceptions of the direction their institution *is going* and *should go*, and, in a very general sense, the Carnegie classifications provide a reasonable basis for grouping institutions, especially if one considers institutions in larger groups indicated by both the I and II designation within each classification category. Respondents in the same group (that is, faculty, academic unit heads, deans, and administrators) but in different Carnegie classification categories tended to have different perceptions concerning the direction their institution *is going* and *should go* vis à vis the relative importance of research and undergraduate teaching.

PART III

STUDY FINDINGS

SECTION 3

MAJOR ACADEMIC AREAS AND DEPARTMENTS

The results of the National Survey also can be viewed in relation to faculty respondents' affiliation with major academic areas and departments. In this section of the report, comparisons are made between Phase I and Phase II faculty responses to the *is going* and *should go* items by major academic area. Phase II responses in different major academic areas also are compared. In addition, Phase II faculty responses to the *you personally* item are examined for different departments.

Phase I and Phase II *Is Going* Item Differences

Because only Research and Doctoral institutions participated in Phase I, these were the only categories of institutions with which Phase II responses could be compared. Similar to the results found when survey data were analyzed by Carnegie classification category (Section 2), there were consistent differences between Phase I and Phase II respondents in the same major academic area in response to the *is going* item. Nearly all of the Phase II *is going* item means fell more toward the center of the continuum (see Table 14) than corresponding means from Phase I. The differences ranged up to 1.5. Sixteen of the seventeen comparisons yielded differences greater than .5. There was not much difference between the *should go* item means from Phase I and Phase II.

As shown in Table 14, of the seventeen major academic areas compared, only Architecture had no change in *is going* item means from Phase I to Phase II. All other groups reported a greater relative importance assigned to undergraduate teaching at their institutions. Of these sixteen major academic areas, five had differences in *is going* item means of .6. Seven had differences in *is going* item means of .7 to .9, while four had differences in *is going* item means of 1.0 to 1.5. These differences indicate that Phase II respondents had *is going* item means that were more toward the teaching end of the continuum than comparable Phase I

Table 14

Phase I and Phase II *Is Going* and *Should Go* Faculty Means By Major Academic Areas

	Total		Is Going			Should Go		
	I N	II** N	I Mean	II** Mean	Diff.	I Mean	II** Mean	Diff.
Agriculture & Env. Sci	854	403	1.4	0.8	0.6*	-0.1	-0.4	0.3*
Architecture	121	55	1.3	1.3	0.0	-0.4	-0.8	0.4
Business/Management	1,057	526	1.3	0.3	1.0*	0.0	-0.5	0.5*
Communication	263	145	1.6	1.0	0.6*	-0.5	-0.4	-0.1
Computer Science	99	136	0.8	0.2	0.6*	0.5	-0.4	0.9*
Education	756	572	1.8	1.0	0.8*	-0.5	-0.6	0.1
Engineering	1,243	844	1.4	0.8	0.6*	0.3	-0.3	0.6*
Fine & Performing Arts	714	498	1.2	0.3	0.9*	-0.6	-0.6	0.0
Home Econ/Hum. Dev.	69	40	1.9	0.6	1.3*	0.0	-0.7	0.7*
Humanities	2,203	1,158	1.5	0.6	0.9*	-0.1	0.0	-0.1
Info. & Library Science	58	72	1.7	1.1	0.6	-0.4	-0.7	0.3
Law	84	68	1.5	0.8	0.7*	-0.1	-0.5	0.4
Med./Health Relat. Stud.	1,233	507	1.2	0.3	0.9*	0.1	-0.1	0.2*
Nursing	186	157	1.6	0.8	0.8*	-0.2	-0.6	0.4*
Science & Mathematics	2,155	1,500	1.0	0.1	0.9*	0.5	0.3	0.2*
Social Science	1,711	1,111	1.3	0.2	1.1*	0.6	0.3	0.3*
Social Work	48	38	1.6	0.1	1.5*	-0.4	-0.4	0.0

**For purposes of comparison with Phase I, only the Research and Doctoral Carnegie classification categories are included.
*Indicates statistically significant difference at the .05 level.

means. Assuming comparability among respondents in the two cohorts, these results indicate a shift in perceptions among those in these major academic areas away from a strong research emphasis.

Differences in Phase I and Phase II *should go* item means were not as pronounced. For example, in thirteen major academic areas there was a difference of less than .5 between Phase I and Phase II *should go* item means. In three others there was a difference of .5 to .7. In only one major academic area was there a larger difference (.9, Computer Science).

Phase II Respondents in Different Major Academic Areas—*Is Going* and *Should Go* Items

As was the case with Phase I results, there were noticeable differences in responses to the *is going* and *should go* items among Phase II respondents in different major academic areas (see Table 14). For example on the scale provided, respondents in Education reported the direction their institution *is going* to be 1.0 toward research, whereas respondents in Science and Mathematics reported that their institution *is going* in a direction of .1 toward research. On average, perceptions of the direction that their institution *should go* also differed, for example, between those in Education (.6 toward teaching) and those in Science and Math (.3 toward research).

Looking at *should go* item means of the larger areas, Humanities (1,158) had an item mean of 0.0; Science and Mathematics (1,500) and Social Science (1,111) had item means of .3 toward research; and Education (572) and Fine and Performing Arts (498) had item means of .6 toward teaching.

Phase II Respondents in Academic Departments across Carnegie Classification Categories—*You Personally* Item Responses

By examining faculty responses to the *you personally* item for those in different academic departments across Carnegie classifications (see Table 15), it is possible to shift the emphasis away from the institutional focus that is inherent in the *is going* and *should go* items. That is, the data related to faculty respondents' perception of the relative importance of research and undergraduate teaching to them personally (*you personally* item) allows for the comparison of perspectives across departments without the point of reference being the respondent's institution. The departments displayed in Table 15 were chosen for comparison because these academic areas were represented at institutions across the continuum of the Carnegie classification

Table 15

Phase II *You Personally* Faculty Responses By Academic Department and Carnegie Classification

	Research I		Research II		Doctoral I		Doctoral II		Master's I		Master's II		Baccalaureate I		Baccalaureate II	
	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
Art	68	-0.13	21	-0.38	23	-0.74	12	-0.83	123	-0.65	9	-0.22	76	-0.13	22	-0.73
Biology	156	0.53	49	0.18	53	-0.13	51	0.08	253	-0.77	17	-2.12	174	-0.90	67	-1.55
Chemistry	136	0.63	42	0.43	44	-0.32	50	-0.18	181	-1.15	7	-2.43	130	-1.27	52	-1.71
Economics	89	0.96	29	0.41	35	0.06	25	-0.20	123	-0.63	8	-0.88	123	-1.55	14	-1.14
English/English Literature & Writing	190	-0.03	84	-0.63	71	-0.61	62	-0.76	371	-1.33	38	-1.11	230	-1.49	96	-2.01
Geology and Earth Science	115	0.94	26	0.23	18	-0.11	20	0.45	41	-0.61	3	-2.67	34	-1.38	22	-2.00
History	126	0.18	41	-0.07	32	-0.09	27	-0.56	179	-0.59	18	-1.00	157	-0.82	44	-1.43
Mathematics & Statistics	153	0.42	82	-0.02	46	-0.78	61	-0.25	273	-1.46	18	-2.72	135	-1.64	57	-2.65
Modern Languages & Literatures	77	-0.01	26	-0.27	33	-0.33	17	-1.65	113	-1.05	16	-1.56	80	-1.14	40	-2.38
Music	53	-0.51	39	-0.90	18	-1.44	21	-1.52	167	-1.57	9	-1.44	110	-1.29	58	-2.02
Philosophy	48	0.52	25	-0.36	20	-0.05	18	-0.50	108	-0.55	4	0.00	69	-0.65	28	-2.14
Physics	162	0.53	31	-0.29	23	-0.26	33	0.39	112	-1.42	7	-0.71	87	-1.46	19	-2.11
Political Science	84	0.80	41	0.71	27	-0.48	28	-0.86	120	-0.80	2	0.50	110	-1.15	16	-2.81
Psychology	172	0.64	75	0.73	107	-0.12	46	0.43	288	-0.75	15	-0.73	148	-0.88	70	-2.10
Religion	28	0.18	4	0.25	15	0.73	19	-0.26	59	-0.61	9	-1.33	84	-0.92	49	-1.55
Sociology	81	0.68	31	0.19	36	-0.03	22	-0.18	142	-0.78	10	-1.60	79	-0.81	35	-1.66

schema. Similarities and differences in comparisons of Phase II *you personally* item responses are shown in Table 16 and displayed graphically in Figures 6 A–D (see Appendix).

Phase II *you personally* item responses for those in different academic departments across Carnegie classification categories (see Table 16) illustrate that there was more consistency within some departments (for example, Art and Music) than in others (for example, Biology and Mathematics and Statistics). There also were more consistencies between some comparisons across academic departments (for example, Master's I and Baccalaureate I respondents) than other comparisons (for example, Research I and Doctoral I respondents). When the patterns of similarity and difference were examined for those in different academic departments across Carnegie classification categories (see Table 16), it was clear that Art and Music had the most similarities between pairs of faculty respondent groups (28 and 25 out of 28, respectively). Math and Statistics and Biology had the fewest similarities or most statistically significant differences (11 and 12 out of 28, respectively).

Figures 6 A–D (Appendix) display the item means across Carnegie classification categories for each department. The Mathematics and Statistics and Biology figures are illustrative of those departments in which there were few similarities in *you personally* item means. In general, the Research and Doctoral means were very different from the Master's and Baccalaureate means in these departments. The bars representing the item means illustrate that for Geology the responses were quite divergent even when they were on the same side of the continuum. This figure shows one of the most dramatic progressions from relative importance of research to relative importance of teaching. In contrast, not only were all of the *you personally* item means on the teaching side of the continuum for Art, but many of them were similar as indicated by the 28 comparisons in Table 16 that were not statistically significantly different. The most gradual progression from nearly equal importance to greater relative importance of teaching is shown in the graph of the English/English Literature and Writing departments. About 25% of these means were statistically significantly different—the ones at the opposite ends of the Carnegie classification continuum.

Table 16

You Personally Item Comparisons
Disciplines by Carnegie Classification Categories

Category Pairs	Art	Bio	Chem	Econ	Eng/ Wrt	Geol	Hist	Math /Stat
Research I and Research II								
Research I and Doctoral I			*					*
Research I and Doctoral II								
Research I and Master's I		*	*	*	*	*	*	*
Research I and Master's II		*	*		*	*		*
Research I and Baccalaureate I		*	*	*	*	*	*	*
Research I and Baccalaureate II		*	*	*	*	*	*	*
Research II and Doctoral I								
Research II and Doctoral II								
Research II and Master's I		*	*		*			*
Research II and Master's II		*	*					*
Research II and Baccalaureate I		*	*	*	*	*		*
Research II and Baccalaureate II		*	*		*	*	*	*
Doctoral I and Doctoral II								
Doctoral I and Master's I								
Doctoral I and Master's II		*						*
Doctoral I and Baccalaureate I			*	*	*			
Doctoral I and Baccalaureate II		*	*		*	*	*	*
Doctoral II and Master's I		*	*					*
Doctoral II and Master's II		*	*			*		*
Doctoral II and Baccalaureate I		*	*	*		*		*
Doctoral II and Baccalaureate II		*	*		*	*		*
Master's I and Master's II		*						
Master's I and Baccalaureate I				*				
Master's I and Baccalaureate II		*			*	*		*
Master's II and Baccalaureate I								
Master's II and Baccalaureate II								
Baccalaureate I Baccalaureate II								*
TOTAL: similar	28	12	13	21	17	17	23	11
*different	0	16	15	7	11	11	5	17

* Indicates statistically significant difference at the .05 level.

Table 16

You Personally Item Comparisons
Disciplines by Carnegie Classification Categories

Category Pairs	Mod Lang	Mus	Phil	Phys	Pol Sci	Psyc	Relig	Soc	Total /sim
Research I and Research II									16
Research I and Doctoral I					*	*			12
Research I and Doctoral II	*				*				14
Research I and Master's I	*	*	*	*	*	*		*	2
Research I and Master's II	*							*	9
Research I and Baccalaureate I	*		*	*	*	*	*	*	2
Research I and Baccalaureate II	*	*	*	*	*	*	*	*	1
Research II and Doctoral I									16
Research II and Doctoral II					*				15
Research II and Master's I				*	*	*			9
Research II and Master's II									13
Research II and Baccalaureate I				*	*	*			7
Research II and Baccalaureate II	*	*	*	*	*	*		*	3
Doctoral I and Doctoral II									16
Doctoral I and Master's I									15
Doctoral I and Master's II							*		13
Doctoral I and Baccalaureate I						*	*		11
Doctoral I and Baccalaureate II	*		*	*	*	*	*	*	3
Doctoral II and Master's I				*		*			11
Doctoral II and Master's II									12
Doctoral II and Baccalaureate I				*		*			9
Doctoral II and Baccalaureate II				*	*	*	*		7
Master's I and Master's II									15
Master's I and Baccalaureate I									15
Master's I and Baccalaureate II	*		*		*	*	*		7
Master's II and Baccalaureate I									16
Master's II and Baccalaureate II									16
Baccalaureate I Baccalaureate II	*		*		*	*			11
TOTAL: similar	19	25	21	18	15	14	21	22	
*different	9	3	7	10	13	14	7	6	

* Indicates statistically significant difference at the .05 level.

SUMMARY

In summary, among respondents in major academic areas, differences in Phase I and Phase II *is going* item means suggest that those in Phase II ascribe less relative importance to research. In addition, there were noticeable differences in the *is going* item means among the different major academic areas in Phase II. Individual academic department's respondents had distinctive patterns of *you personally* item means across Carnegie classification in Phase II, with some being very consistent and others quite inconsistent.

PART III

STUDY FINDINGS

SECTION 4

YOU PERSONALLY—VIEWS OF SELF AND OF OTHERS

The other set of items on the national survey asked respondents: How important are research and undergraduate teaching to *you personally* and How important are research and undergraduate teaching to "others," that is, faculty, unit heads, deans, or administrators? These items provide the basis for comparing the responses of those in the same group across Carnegie classifications and for comparing the responses of those in different groups in the same Carnegie classification. In addition, by calculating the difference between responses to the *you personally* item and the "other" items a discrepancy index (DI) was created. The DI provides an estimate of the consistency or inconsistency that exists between different respondent groups' personal view of the relative importance of research and undergraduate teaching and how "others" view them in this regard.

You personally Item Ratings

The pattern of responses to the *you personally* item clearly changes from Research to Baccalaureate institutions (see Table 17). The general trend is for a greater number of responses to be on the teaching side of the continuum across this progression. The findings revealed that none of the *you personally* item means were on the research side of the continuum (see Table 17). For Research and Doctoral respondents, on average, ratings were at or near the mid-point—that is, equal importance. In addition, there were many similar ratings among groups of respondents. For example, the *you personally* item means for both Doctoral I and Doctoral II faculty were .07 on the teaching side of the continuum, 1.3 on the teaching side for both Master's I and Baccalaureate I faculty respondents, and 2.1 on the teaching side of the continuum for Master's I and Baccalaureate I unit heads.

In addition, as with the *should go* item, a bi-modal distribution began to appear with the Research II respondents and became more pronounced (depending on the

Table 17

Phase II Self Perceptions and How Others are Viewed By Carnegie Classification Category and Role

	Total N	Self: You Personally Mean	Self: You Personally Std	Others: Faculty Mean	Others: Faculty Std	Others: Academic Unit Heads Mean	Others: Academic Unit Heads Std	Others: Deans Mean	Others: Deans Std	Others: Administrators Mean	Others: Administrators Std
Research I											
Faculty	5,760	0.0	2.0	0.9	1.9	0.9	1.9	1.1	1.9	1.0	2.0
Unit Head	444	0.0	1.5	0.6	1.7	•	•	0.4	1.5	0.4	1.8
Dean	151	-0.4	1.7	0.4	1.9	0.7	1.7	•	•	0.3	1.7
Administrator	126	-0.5	1.7	1.2	1.8	1.5	1.6	1.4	1.7	0.5	1.6
Research II											
Faculty	2,077	-0.4	2.0	-0.0	2.0	0.3	1.9	0.7	1.9	1.0	2.2
Unit Head	237	-0.4	1.8	-0.2	1.9	•	•	0.3	1.6	0.5	2.1
Dean	94	-0.4	1.5	-0.4	1.8	0.3	1.7	•	•	0.3	1.9
Administrator	62	-0.9	1.8	0.6	1.7	0.7	1.5	1.1	1.6	1.0	1.9
Doctoral I											
Faculty	1,630	-0.7	1.9	-0.5	1.9	0.0	1.9	0.3	2.0	0.6	2.0
Unit Head	139	-0.6	1.6	-0.9	1.8	•	•	0.1	1.6	0.6	1.7
Dean	60	-0.5	1.4	-0.8	1.6	-0.2	1.5	•	•	0.1	1.5
Administrator	47	-1.3	1.5	-1.0	1.9	-0.6	1.9	-0.1	2.1	-0.3	1.9
Doctoral II											
Faculty	1,315	-0.7	2.0	-0.5	1.9	-0.2	2.0	0.1	2.0	0.7	2.1
Unit Head	79	-0.6	1.8	-0.6	1.9	•	•	0.0	1.6	0.2	1.8
Dean	39	-0.7	1.5	-0.7	2.2	-0.6	2.0	•	•	-0.0	1.6
Administrator	13	-1.5	1.3	-0.3	2.0	0.1	1.7	-0.1	1.6	0.5	1.7
Master's I											
Faculty	6,531	-1.3	1.9	-1.4	1.8	-0.9	2.0	-0.3	2.1	-0.2	2.2
Unit Head	655	-1.4	1.7	-1.6	1.7	•	•	-0.6	1.8	-0.4	1.9
Dean	185	-1.3	1.4	-1.6	1.7	-1.3	1.7	•	•	-0.8	1.8
Administrator	263	-1.8	1.5	-1.6	1.6	-1.2	1.7	-1.0	1.7	-1.0	1.6
Master's II											
Faculty	459	-1.5	1.7	-1.8	1.7	-1.6	1.7	-1.2	1.8	-0.9	2.0
Unit Head	59	-2.1	1.5	-2.3	1.4	•	•	-1.6	1.5	-1.7	1.7
Dean	12	-1.3	1.5	-0.9	2.3	-1.0	1.9	•	•	-0.9	1.9
Administrator	65	-2.0	1.3	-2.1	1.5	-1.8	1.4	-1.5	1.6	-2.2	1.3
Baccalaureate I											
Faculty	2,710	-1.3	1.7	-1.5	1.5	-1.4	1.7	-1.0	1.7	-0.8	1.9
Unit Head	321	-1.2	1.6	-1.4	1.4	•	•	-1.1	1.6	-0.7	1.9
Dean	46	-1.6	1.1	-1.8	1.2	-1.6	1.2	•	•	-1.0	1.5
Administrator	163	-1.9	1.4	-1.5	1.5	-1.4	1.6	-1.3	1.5	-1.1	1.7
Baccalaureate II											
Faculty	1,605	-2.1	1.6	-2.4	1.3	-2.1	1.6	-1.8	1.5	-1.8	1.7
Unit Head	259	-2.1	1.5	-2.5	1.3	•	•	-1.9	1.4	-1.9	1.6
Dean	53	-2.2	1.0	-2.8	0.9	-2.6	0.9	•	•	-2.5	1.4
Administrator	182	-2.0	1.4	-2.4	1.2	-2.1	1.4	-2.1	1.4	-2.0	1.5

• Unit heads and deans were not asked about others in their role.

respondent group) in the Baccalaureate II category. This distribution suggests that in each of these respondent groups there was a cohort who preferred that research and undergraduate teaching have equal importance and another cohort who preferred that undergraduate teaching be ascribed greater relative importance.

Same Group of Respondents Across Carnegie Classifications

Table 18 shows the patterns of statistically significant difference in responses to the *you personally* item for the various respondent groups (faculty, unit heads, deans, and administrators) in Carnegie classification pairings, (i.e., Research I and II faculty).

Clearly, deans' and administrators' *you personally* item means had the fewest statistically significant differences and, therefore, the greatest degree of similarity. Faculty and unit head respondents had the most differences and the least similarity across Carnegie classification categories. Interesting findings include the following:

- The large number of statistically significant differences between *you personally* item means among pairs of faculty (24) and pairs of unit heads (22) were in sharp contrast to the number of statistically significant difference among pairs of deans (11) and pairs of administrators (8).
- Three of the four not statistically significantly different faculty comparisons were Master's/Baccalaureate pairs—Master's I/Master's II, Master's I/Baccalaureate I, and Master's II/Baccalaureate I.
- Master's and Baccalaureate respondents paired with Research respondents accounted for all six of the common statistically significant differences for the dean and administrator groups.
- All of the statistically significant differences for administrators involved Research and Master's or Baccalaureate pairings.
- There were no statistically significant differences between pairs of administrator respondents in Doctoral/Master's, Doctoral/Baccalaureate, Master's/Baccalaureate, or Doctoral I/Doctoral II pairings.
- There were no statistically significant differences between all possible Research/Doctoral pairings for deans and administrators.

Table 18

You Personally Item Comparisons
Carnegie Classification Categories by Respondent Groups

Category Pairs	Faculty	Unit Head	Dean	Administrator
Research I and Research II	*	*		
Research I and Doctoral I	*	*		
Research I and Doctoral II	*	*		
Research I and Master's I	*	*	*	*
Research I and Master's II	*	*	*	*
Research I and Baccalaureate I	*	*		*
Research I and Baccalaureate II	*	*	*	*
Research II and Doctoral I	*			
Research II and Doctoral II	*			
Research II and Master's I	*	*	*	*
Research II and Master's II	*	*		*
Research II and Baccalaureate I	*	*	*	*
Research II and Baccalaureate II	*	*	*	*
Doctoral I and Doctoral II				
Doctoral I and Master's I	*	*	*	
Doctoral I and Master's II	*	*		
Doctoral I and Baccalaureate I	*	*	*	
Doctoral I and Baccalaureate II	*	*	*	
Doctoral II and Master's I	*	*		
Doctoral II and Master's II	*	*		
Doctoral II and Baccalaureate I	*			
Doctoral II and Baccalaureate II	*	*	*	
Master's I and Master's II		*		
Master's I and Baccalaureate I				
Master's I and Baccalaureate II	*	*	*	
Master's II and Baccalaureate I		*		
Master's II and Baccalaureate II	*			
Baccalaureate I Baccalaureate II	*	*		
TOTAL similar	4	6	17	20
*different	24	22	11	8

* Indicates statistically significant difference at the .05 level.

Different Groups of Respondents Within Carnegie Classification

Table 19 shows that within four of the eight Carnegie classification categories, all six of the comparisons between respondent group pairs were not statistically significant. That is, all groups in Research II, Doctoral I, Doctoral II, and Baccalaureate II categories had similar *you personally* item means. Master's I groups had the most statistically significant differences (3 of 6). Looking at specific respondent groups, administrators paired with other groups had the greatest number of statistically significant differences.

You Personally—Comparisons of Self-perceptions and Perceptions of Others

The data shown in Table 20 focus on the discrepancy between the means for the *you personally* item and the items in which respondents were asked to indicate their perception of the relative importance of research and undergraduate teaching to "others," that is, the majority of other faculty in their units, their academic unit heads, their deans, and other academic administrators. Respondent groups' *you personally* item means are listed in bold type, diagonally under each Carnegie classification category in Table 20. The other cells list the difference between the *you personally* item mean for a particular group (the column headings) and the rating of that group by others (the row headings). A discrepancy index (DI) was calculated for each set of four item means so that comparisons could be made between groups of respondents and those in different Carnegie classification categories.

The data in Table 20 show that, in general, higher discrepancy indexes (DIs) were related to administrators. In almost all Carnegie classification categories there were quite large discrepancies, ranging up to 2.2, in the way administrators rated themselves and the way they were rated by others. In addition, Research I and Research II administrators' perceptions of other groups were the most different from these groups' self-perceptions.

Summing across all Carnegie classification categories, administrators had the highest total DI, 28.8. More specifically, the set of discrepancies with the highest DIs, greater than 5.0, were related to administrators in Doctoral I and Doctoral II categories. Such high DIs indicate that there was a substantial gap between the average self-perception of administrators (that is, *you personally* item mean) in these categories vis à vis the relative importance of research and undergraduate teaching and the average perception of them by "others" in this regard.

Table 19

You Personally Item Comparisons
Carnegie Classification Categories by Respondent Groups

Respondent Group Pairs	R-I	R-II	D-I	D-II	M-I	M-II	B-I	B-II
Faculty and Unit Head						*		
Faculty and Dean					*			
Faculty and Administrator	*						*	
Unit Head and Dean								
Unit Head and Administrator	*				*		*	
Dean and Administrator					*			
TOTAL similar	4	6	6	6	3	5	4	6
*different	2	0	0	0	3	1	2	0

* Indicates statistically significant difference at the .05 level.

Table 20

Phase II How Others are Viewed and Discrepency Index** By Role and Carnegie Classification

	Total N	Faculty Diff.*	DI	Unit Heads Diff.*	DI	Deans Diff.*	DI	Administrators Diff.*	DI	Total DI
Research I										
Faculty	5,760	**0.0**		-0.9		-1.5		1.5		
Unit Head	444	-0.6		**0.0**		-0.8		-0.9		
Dean	151	-0.4	2.2	-0.7	3.1	**-0.4**	4.1	-0.8	3.2	12.6
Administrator	126	-1.2		-1.5		-1.8		**-0.5**		
Research II										
Faculty	2,077	**-0.4**		-0.7		-1.1		-1.9		
Unit Head	237	-0.2		**-0.4**		-0.7		-1.4		
Dean	94	0.0	1.2	-0.7	2.5	**-0.4**	3.3	-1.2	4.5	11.5
Administrator	62	-1.0		-1.1		-1.5		**-0.9**		
Doctoral I										
Faculty	1,630	**-0.7**		-0.6		-0.8		-1.9		
Unit Head	139	0.2		**-0.6**		-0.6		-1.9		
Dean	60	0.1	0.6	-0.4	1.0	**-0.5**	1.8	-1.4	5.2	8.6
Administrator	47	0.3		0.0		-0.4		**-1.3**		
Doctoral II										
Faculty	1,315	**-0.7**		-0.4		-0.8		-2.2		
Unit Head	79	-0.1		**-0.6**		-0.7		-1.7		
Dean	39	0.0	0.5	0.0	1.1	**-0.7**	2.1	-1.5	5.4	9.1
Administrator	13	-0.4		-0.7		-0.6		**-1.5**		
Master's I										
Faculty	6,531	**-1.3**		-0.5		-1.0		-1.6		
Unit Head	655	0.3		**-1.4**		-0.7		-1.4		
Dean	185	0.3	0.9	-0.1	0.8	**-1.3**	2.0	-1.0	4.0	7.7
Administrator	263	0.3		-0.2		-0.3		**-1.8**		
Master's II										
Faculty	459	**-1.5**		-0.5		-0.1		-1.1		
Unit Head	59	0.8		**-2.1**		0.3		-0.3		
Dean	12	-0.6	2.0	-1.1	1.9	**-1.3**	0.6	-1.1	2.5	7.0
Administrator	65	0.6		-0.3		0.2		**-2.0**		
Baccalaureate I										
Faculty	2,710	**-1.3**		0.2		-0.6		-1.1		
Unit Head	321	0.1		**-1.2**		-0.5		-1.2		
Dean	46	0.5	0.8	0.4	0.8	**-1.6**	1.4	-0.9	3.2	6.2
Administrator	163	0.2		0.2		-0.3		**-1.9**		
Baccalaureate II										
Faculty	1,605	**-2.1**		0.0		-0.4		-0.2		
Unit Head	259	0.4		**-2.1**		-0.3		-0.1		
Dean	53	0.7	1.4	0.5	0.5	**-2.2**	0.8	0.5	0.8	3.5
Administrator	182	0.3		0.0		-0.1		**-2.0**		
Total Discrepancy Index		9.6		11.7		16.1		28.8		

Self perceptions (that is, responses to the *you personally* item) are **bolded**

* Differences were calculated between *you personally* item means and the rating of a given group by those in the other respondent groups (e.g. faculty *you personally* item means and unit heads' rating of faculty perceptions of the relative importance of research and undergraduate teaching).

** Discrepancy Index (DI) is the total of the absolute values of the differences within a set of responses.

In contrast, faculty as a group had the lowest total DI, 9.6. Doctoral I and Doctoral II faculty had the lowest sets of DIs, .6 and .5, respectively. Such low DIs indicate that there was little gap between the average self-perception of faculty in these categories vis à vis the relative importance of research and undergraduate teaching and the average perception of them by others. In almost all sets of four means in Table 20 the discrepancy values indicate that the self-perceptions of a group (that is, *you personally* item means) are further toward the teaching end of the continuum than are the perceptions of others regarding the group (this is indicated by the - symbol in front of most discrepancy values since the discrepancy was toward the left or teaching side of the 0 point on the continuum). This suggests that respondents typically viewed themselves as valuing equal importance or a relatively greater teaching importance than was ascribed to them by others.

SUMMARY

In summary, self-perceptions and perceptions of others varied. There was considerable variability among groups at Research universities, while at Baccalaureate colleges, views were less discrepant. As a group, administrators' self-perceptions were most at odds with other groups' views of them. In general, respondents viewed themselves as assigning more relative importance to teaching than was ascribed to them by others.

PART IV

WHAT OPEN-ENDED RESPONSES TELL US

Responses to open-ended items provided insight into quantitative data, helping to explain phenomena or provide information that could not be inferred from scaled responses. Roughly 38% of faculty responded to the open-ended prompt for Item C: *Please comment on the similarities and differences in the above ratings.* Many of those comments were long, carefully crafted responses reflecting a strong commitment to research and undergraduate teaching. The comments also communicated deep frustration around the tensions in higher education as respondents experience them within their institutions. While respondents often mentioned particular campus issues and concerns, in reading faculty comments across institutions and institution types, a number of common themes emerged.

THE INTERRELATIONSHIP OF TEACHING AND RESEARCH

The tension faculty feel around the relative importance of research and undergraduate teaching resonated in their comments. One common theme was the interrelationship of teaching and research. Many respondents made the case that their research and teaching roles and activities cannot be separated—that they co-exist so as to make them "scholars." Faculty comments reflected a concern that both teaching and research need to be supported on their campuses. Faculty suggested that their institutions could emphasize both vital activities by drawing on the differential strengths of faculty. A sizable number of faculty comments suggested that higher education is not addressing the need for flexibility in faculty roles and rewards so as to support faculty as teachers and researchers.

> *I do not think that teaching and research can be separated. Both need to be supported—and valued.*
>
> *The university, overall, should put equal emphasis on teaching and research. Not everyone needs to be an excellent teacher and a strong researcher. The institution should give each faculty member the opportunity to bring out his/her talents in teaching, research, or both.*

DEFINITIONS OF FACULTY WORK

Respondents reminded us that definitions of faculty work vary across institution type. The parameters for "research" range from traditional scholarship to work that inspires and enriches teaching, manifesting itself in reading and attending conferences and "keeping up" in the discipline. Considerations of applied work and professional service as "teaching" as well as questions about where "service" fits around the teaching—research continuum were articulated in faculty comments. Respondents on some campuses claimed that a significant amount of their time was allocated to "administrative" work. Clearly faculty feel pressured to "do it all."

> *Our department is labor-intensive, weighted heavily toward teaching because of the amount of time needed to respond to student work. The Chair wants us to contribute every spare minute to building the department, and the Dean thinks we can teach the way he does—lecture. He expects first-rate teaching and first-rate research. The Provost wants to keep us occupied with committees and projects that will produce nothing so that we won't have time to do work (i.e., research) the school will pay for. So we are pulled in many directions at once.*

TIME PRESSURE

An ancillary theme in the open-ended comments had to do with a sense of time pressure. Across institutions and institution types, respondents reported that time is insufficient to perform the range of roles and responsibilities expected of them. The following comment reflects the tension faculty feel around workload issues:

> *For the next year I have been given five courses to teach in the Fall term and then a label of "reduced load" in the Spring with four courses. This teaching load makes research distant and also makes teaching less important as administrative, recruiting, public relations, advising, committee work and community service are added in. I think the college needs to define its boundaries and the roles of faculty.*

This frustration around time, multiple roles and responsibilities, and changing institutional priorities appeared especially difficult for new faculty anticipating tenure.

The tension you have captured in this survey is very frustrating for young tenure-track faculty members like myself. There is a great deal of workload emphasis on teaching, but when you get to tenure and promotion, the bean counters look to how much you've published.

The worst part of being a faculty member without tenure is the changing standards for research and not knowing what they will be when I apply.

Rhetoric and Reality

Another important theme that emerged from faculty comments was the difference between the rhetoric and the reality around faculty roles and rewards. Clearly many faculty respondents perceived "mixed messages" vis à vis the relative importance of research and undergraduate teaching at their institutions. The phrase "lip service" was the phrase most frequently used to describe institutional support for teaching. Faculty comments reflected the rhetoric of changing institutional priorities, but few respondents reported having seen what they considered to be tangible evidence of change. The crucible seemed to be promotion and tenure and faculty merit decisions, where respondents perceived little follow-through on campus rhetoric about the importance of teaching:

Despite the rhetoric, I do not believe teaching and research are truly valued equally in the decisions that matter most to me—promotion and tenure decisions, merit pay increases, and resource allocation to programs.

Although considerable lip service is paid to the importance of teaching, research—or more accurately publication—is the only sure way to real rewards. The more attention one pays to the real needs of the students we teach, the more the lip service and the fewer the rewards.

Change Over Time

Change over time was another strong theme in faculty comments. Change was reflected in comments having to do with respondents' personal priorities and perspectives as well as those of their institutions. Faculty reported being caught in institutional change they perceive as originating with campus leaders.

I took this position with a teaching-focus in mind. Then a new Provost entered and encouraged an emphasis on research.

Historically, this institution has been interested primarily in undergraduate education. The new administration is now emphasizing research in an effort to raise prestige.

There's been a shift in the value of research. Many "old timers" were tenured under a system in which research was nice but not very important. Most junior faculty in the last ten years recognize the importance of research.

I see this institution as almost schizophrenic in its emphasis on teaching/research. Fifteen years ago the emphasis was on teaching; seven years ago it was on research; now it is returning to teaching. I have found this changing emphasis to be confusing and exhausting.

These comments reflected a sense of apprehension that institutional priorities will change in ways that are not amenable to faculty or that faculty will be expected to perform roles for which they were not prepared. Respondents reported changing priorities of their own, principally over time. Some faculty reported that their emphasis on undergraduate teaching has grown over time; others reported that in their advanced tenure years they preferred to focus their energies on research. There are different stages in the faculty career cycle, and those stages are affected by such variables as academic discipline and institution type as well as personal inclination and professional development.

I've given substantially more emphasis to teaching than research in my first ten years at this institution. Now that I have my teaching duties under control, so to speak, I plan to do more research.

Prior to receiving tenure, I needed to devote myself to research activities (getting a book published). Now that I have passed that hurdle, I find myself focusing on teaching.

Evaluating Teaching

An important issue that emerged from respondents' comments was the need for work in the area of teaching evaluation. Faculty may have reservations about current practices for evaluating research, but by and large, their comments suggested that peer review has become institutionalized. Respondents were concerned that

greater emphasis on teaching be accompanied by trustworthy methods and measures for evaluating teaching performance.

> *I think our institution has a high degree of agreement on the importance of teaching. What we do not do well is assess the quality and effectiveness of our teaching as opposed to its popularity.*
>
> *I believe my institution values teaching, but articles are easier to count. It is just harder to measure good teaching.*

SUMMARY

While responses to the scaled items portrayed a picture of campus perceptions, respondents' comments provided a more complicated picture of faculty work. Reading comments from faculty on hundreds of campuses provided a keen sense of the people behind these data. Two strong impressions about faculty emerged: they are dedicated to their work with students and to pursuing their own scholarly lives, and they are struggling to satisfy those needs as well as the other demands made of them. Clearly faculty are not all at the same point in their careers or approaching their work from the same disciplinary perspective. Differences in institution type and campus culture coupled with individual preferences made faculty perceptions hard to isolate; however, the themes that emerged from reading thousands of comments reminded us that, despite their differences, faculty experience similar tensions and face similar challenges.

PART V

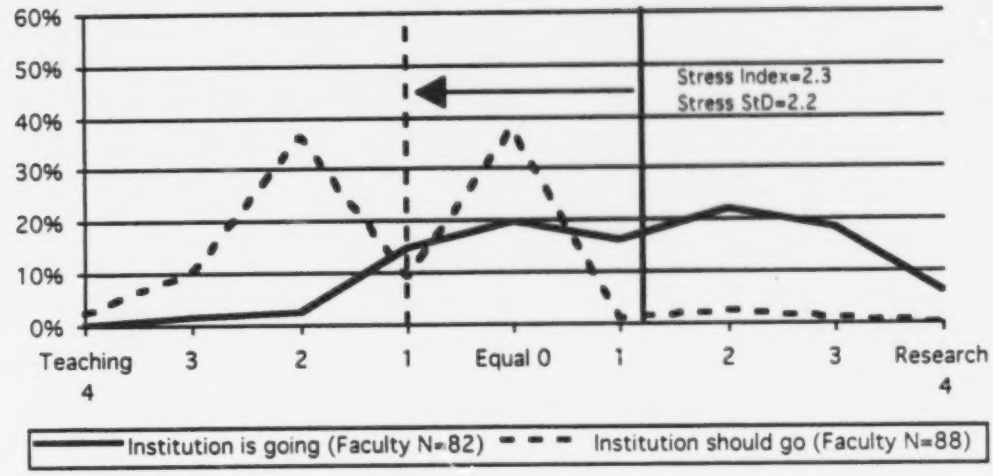
ILLUSTRATIVE INSTITUTIONS

Although the data collected in this study present important aggregate results, the primary purpose of this project was to provide information to individual institutions. Each participating institution received a campus report that detailed the perceptions and comments of its respondent groups. The national data provide an interesting and useful picture of higher education; however, the data are most powerful when considered within a particular context by those with the insight and knowledge required to appropriately interpret their significance. In order to provide a sense of the individual differences among and within institutions, three illustrative cases have been selected. Graphs from campus reports have been included to illustrate how different from the composite profiles individual campus data may be. Illustrations vary since institutional size and structure guided the selection of modes of data representation. More in-depth analysis was possible at larger institutions than at smaller colleges. These campus cases illustrate that at the institution level there can be strong congruence among respondents or significant variability among groups or individuals.

CASE 1 — BACCALAUREATE I COLLEGE

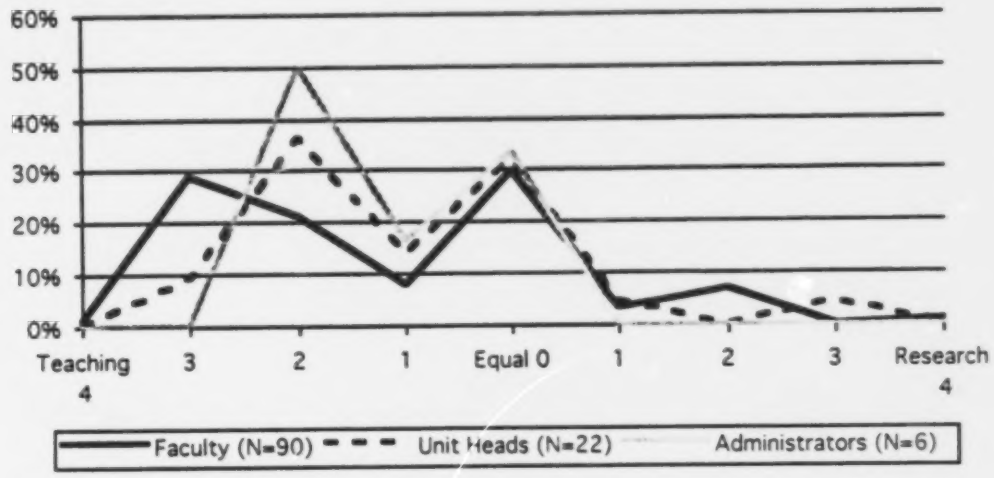
The first case illustration is a private Baccalaureate I college at which there was considerable difference between the direction faculty reported the institution *is going* and the direction they perceived it *should go*. The following Case 1 graph illustrates the disparity between faculty perceptions (*is going* item) and preferences (*should go* item) and the Stress Index that represents that tension (stress index = *should go* item mean – *is going* item mean).

Case 1—
The direction the institution *is going*
vs. the direction the institution *should go*



The solid line in this graph suggests that over 60% of faculty respondents at this small, private liberal arts college perceived their institution emphasizing research, while the bi-modal distribution shown by the dashed line suggests two factions within the respondent group—one favoring a moderate teaching emphasis and the other favoring equal emphasis between teaching and research. The difference between the two means as well as the standard deviations suggests a range of individual faculty perceptions on this campus. The following graph complicates the picture by displaying faculty, unit heads', and administrators' responses to the *you personally* item.

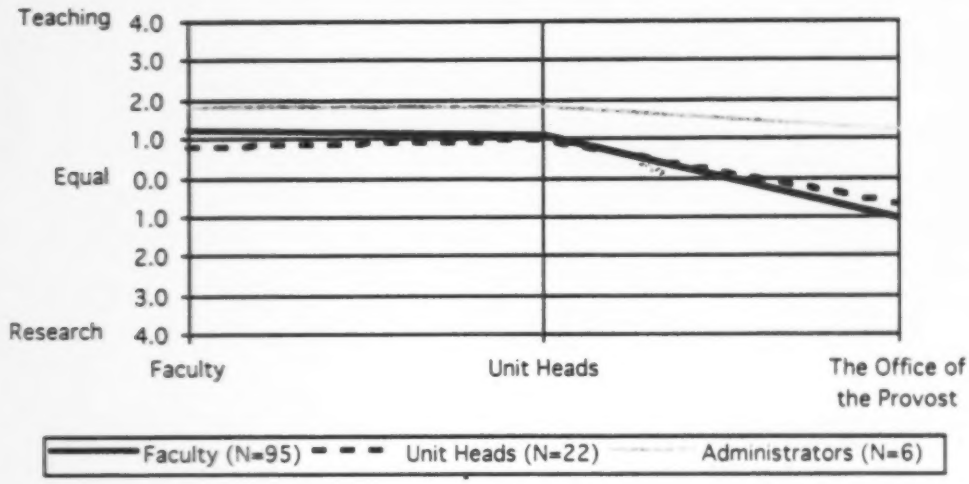
Case 1—
The importance of research and undergraduate teaching to *you personally*



Interestingly, when faculty were asked about their own perception of the relative importance of research and undergraduate teaching (*you personally* item), one group's responses were more strongly toward the teaching end of the continuum than responses to the *should go* item were. This phenomenon seems to suggest that responses to both the *is going* and *should go* items are filtered through an institutional lens, while responses to the *you personally* item are more clearly representative of respondents' own preferences or priorities. It is interesting to note that the other group of faculty respondents in this case remained constant in their preference for equal emphasis of research and undergraduate teaching. Unit head responses to this item approximated faculty responses to the *should go* item, with a bi-modal pattern tipped toward the teaching end of the continuum. Administrators' responses reflected the bi-modal pattern as well. Outlying responses on the research end of the continuum reminded us of the research emphasis that faculty perceived at this institution

The following Case 1 graph offers some insight into the reasons behind the disparity between respondents' preference for teaching or equal emphasis and their perception that the institution *is going* toward an emphasis on research.

Case 1—
How important are research and undergraduate teaching to you and to others at your institution?



All three respondent groups (faculty, unit heads, and administrators) identified the Office of the Provost as emphasizing research more strongly than other groups (faculty, and unit heads). There was a clear discrepancy between faculty and unit heads' perceptions and those of administrators in that the former groups perceived the Office of the Provost favoring research to a greater extent than administrators. This suggests that within campus cultures key persons and offices are clearly influential but that they are perceived differently.

The comments from faculty on this campus suggested that priorities have recently shifted at this institution:

> *I believe that the present administration began with a strong emphasis on research and publication in hiring, tenure and salary/promotion. In the last three or four years, there has been some shift in this position but no clear message to faculty.*

It is interesting to note that the first graph for this Baccalaureate I college (*is going, should go,* and Stress Index) resembles that of many Research universities. This case also illustrates that within Carnegie classification

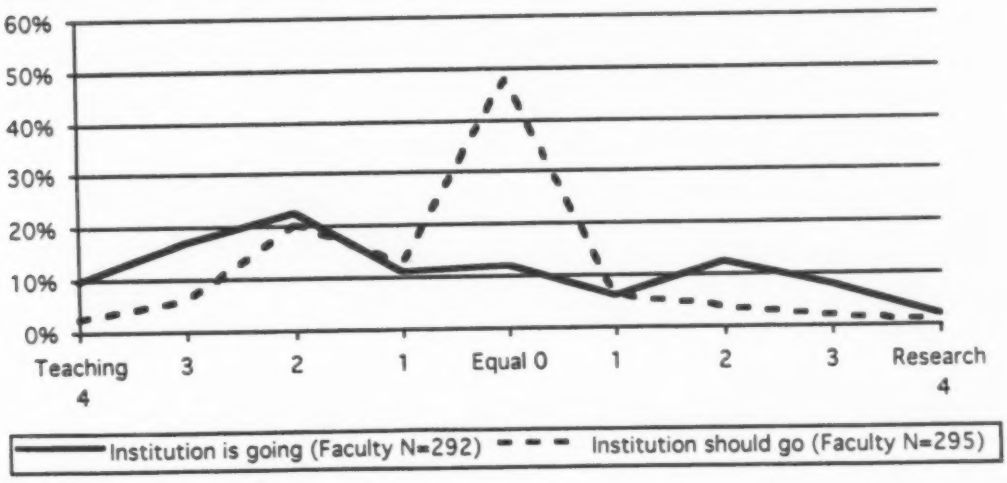
categories were institutions that did not resemble the composite for that category.

Viewing the various illustrations of campus perceptions, such as are presented in a campus report, provides multiple perspectives on institutional priorities and perceptions vis à vis the relative importance of research and undergraduate teaching.

CASE 2—RESEARCH II UNIVERSITY

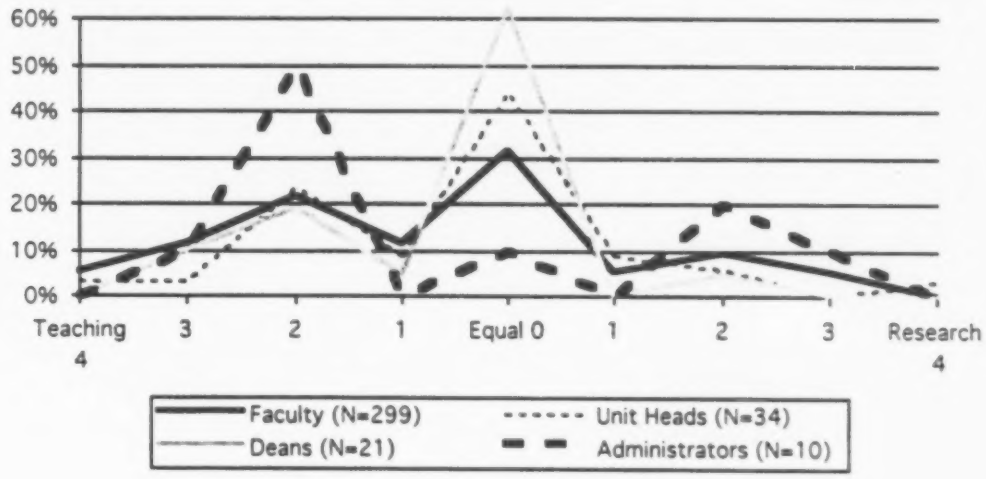
At this public Research II university there were a range of perceptions among faculty respondents about the direction the institution *is going*. As the following Case 2 graph illustrates, responses spanned the continuum with the largest percentage of respondents (20%) reporting a moderate relative importance of teaching. While roughly 30% of respondents reported that this is the direction they prefer (*should go*), nearly 50% of respondents preferred an equal balance of research and undergraduate teaching.

Case 2—
The direction the institution *is going*
vs. the direction the institution *should go*



At this institution a variety of perceptions vis à vis the relative importance of research and undergraduate teaching appeared to co-exist. The next Case 2 graph suggests that among faculty, academic unit heads, deans, and administrators, personal values differed within and among respondent groups. Although the response groups varied in size, in all cases, a pattern of three sets of responses was evident—one group of responses fell toward the teaching end of the continuum, another at the equal or balance point, and a third on the research side of the continuum. With the exception of administrators, respondent groups' most prevalent responses were around the equal point. Sixty percent of administrators claimed that teaching has more relative importance than research to them personally, while 30% responded that research has more relative importance to them than teaching.

Case 2—
The importance of research and undergraduate teaching to *you personally*



The response tables for the various schools in this research university demonstrate that differences in perception existed across the arts and sciences, while in other schools, such as Business, Engineering, and Education, more convergence of perceptions existed within individual colleges. For example, none of the twenty-nine respondents in the College of Education reported that the institution *should go* in a research direction, while in the College of Business 27% of respondents said that the institution *should go* in a research direction.

Respondent comments from this institution echoed the different perspectives evidenced in the forced-choice items. Two administrators' comments reflected the range of perceptions concerning faculty:

> *While I agree that there appears to be a heavy research emphasis at this institution, my own experience is that a great many faculty enjoy and value their teaching. This varies from college to college, but overall I think there is a healthy balance.*
>
> *Unfortunately, most faculty perceive their research as far more important than the task of sharing ideas with students. Students are a tolerated annoyance to most faculty of my acquaintance.*

Faculty respondents reflected a similar range of perceptions about administrators:

> *I believe that the higher one goes in the administration, the more the emphasis leans toward teaching. This is unfortunate because someone who is not a true scholar will teach increasingly stale material over time.*
>
> *A pity that higher administration sees research as more important than undergraduate education.*

A comment from an academic unit head provided an interesting interpretation of the seeming inconsistency of perceptions and vision at this university:

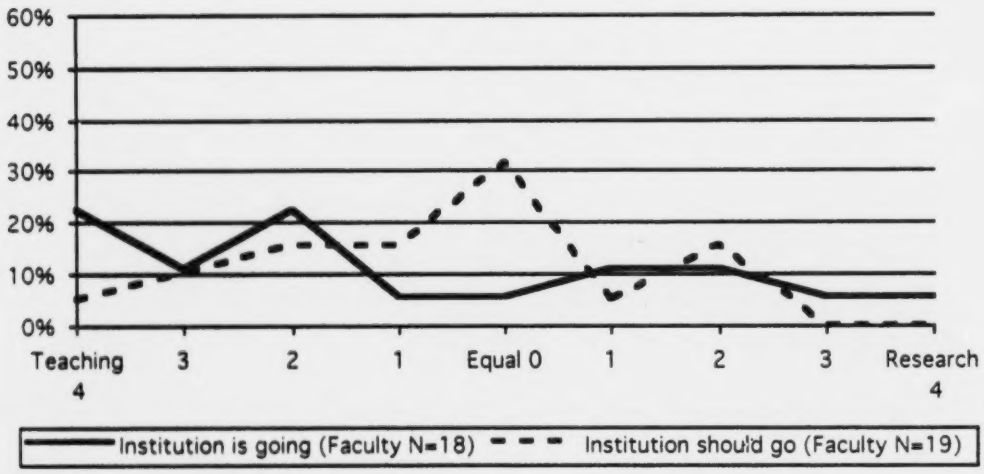
> *The university is being torn by the force of two arguments: (1) the currency of value in the national economy of academe is research—we gain our reputation through this, and (2) the coin of the realm in this state is teaching. We have never been able to explain research to the state, because: it has little to do with them, it has marginal effect on their sons and daughters, and the kind of national regard we desire means little outside this college town—the horns of a dilemma.*

State universities such as this one face crucial challenges as they struggle to maintain the funding they need for survival. Diminishing resources have left many institutions with the difficult task of unifying highly specialized missions within a more integrated institutional vision.

CASE 3—BACCALAUREATE II COLLEGE

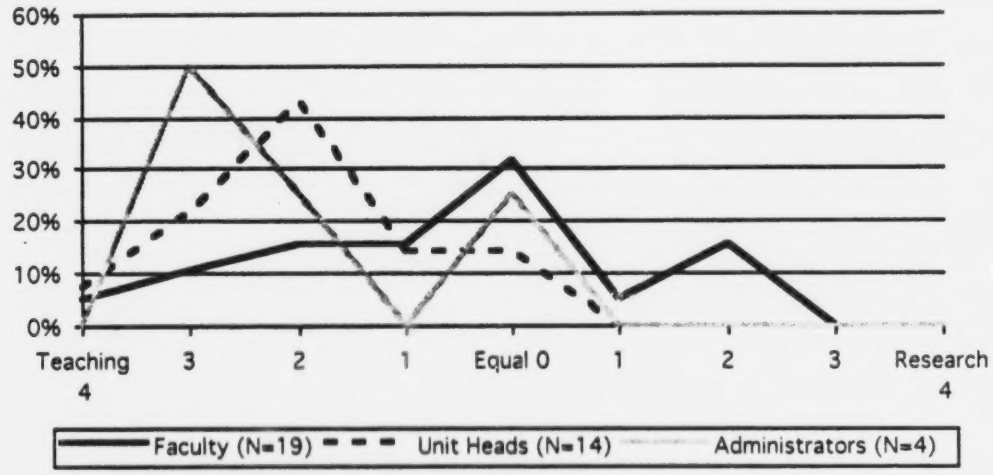
At this private Baccalaureate II college, respondents' perceptions did not reflect the teaching emphasis evident at other colleges in this category. The following Case 3 graph illustrates that a group of faculty (20%) asserted that their institution *should go* in the direction of research. Although a larger group of faculty respondents (45%) supported an emphasis on teaching, in a small faculty such as this, 20% is a viable force. The largest single set of responses to the *should go* item at this institution (30%) fell at the equal point on the continuum. Faculty perceptions of the direction the institution *is going* were widely disparate for such a small institution.

Case 3—
The direction the institution *is going*
vs. the direction the institution *should go*



The next Case 3 graph shows the perceptions of academic unit heads and administrators along with those of faculty regarding the direction they think their institution *should go*.

Case 3—
The direction the institution *should go*



Clearly, more faculty were supportive of a research emphasis than respondents in the other groups. The administrators and the academic unit heads claimed a teaching focus as the proper direction for this small college. Yet in faculty comments we heard:

> *Our administration is abandoning the old idea of our being basically a teaching institution. Tenure and promotion now require substantial research and yet many of us teach four different courses every semester. How can we do it?*

By examining the response tables for this institution, the cohort of respondents who favored a research emphasis was identified as those who had been at the institution from 1–3 years. New professors often bring with them a keen interest in research and can invigorate the faculties at small institutions. To the extent that their interests are compatible with those of others at an institution, this dynamic can have a positive impact on the institution. When it creates two camps within the faculty, it can create an unproductive tension in the campus community.

SUMMARY

It is important to remember that at the institution level, where these data enjoy their most relevant interpretations, they also have the most power. While interesting patterns and trends can be observed and tracked in the overall data set, the campus reports provided 243 colleges and universities with a rich self-portrait from which a whole range of initiatives and plans might be launched. National data are useful for comparative purposes and interesting to those tracking trends in American higher education. However, for faculty and students, higher education is experienced at the local level on the campus they choose to make their home, and, therefore, the results of this study are most meaningful and useful at that level.

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Appendix

Appendix A

The 1994 Carnegie Classification Definition of Categories

The 1994 Carnegie Classification includes all colleges and universities in the United States that are degree-granting and accredited by an agency recognized by the U.S. Secretary of Education.

Research Universities I: These institutions offer a full range of baccalaureate programs, are committed to graduate education through the doctorate, and give high priority to research. They award 50 or more doctoral degrees each year. In addition, they receive annually $40 million or more in federal support.

Research Universities II: These institutions offer a full range of baccalaureate programs, are committed to graduate education through the doctorate, and give high priority to research. They award 50 or more doctoral degrees each year. In addition, they receive annually between $15.5 million and $40 million in federal support.

Doctoral Universities I: These institutions offer a full range of baccalaureate programs and are committed to graduate education through the doctorate. They award at least 40 doctoral degrees annually in five or more disciplines.

Doctoral Universities II: These institutions offer a full range of baccalaureate programs and are committed to graduate education through the doctorate. They award annually at least ten doctoral degrees—in three or more disciplines—or 20 or more doctoral degrees in one or more disciplines.

Master's (Comprehensive) Colleges and Universities I: These institutions offer a full range of baccalaureate programs and are committed to graduate education through the master's degree. They award 40 or more master's degrees annually in three or more disciplines.

Master's (Comprehensive) Colleges and Universities II: These institutions offer a full range of baccalaureate programs and are committed to graduate education through the master's degree. They award 20 or more master's degrees annually in one or more disciplines.

Baccalaureate (Liberal Arts) Colleges I: These institutions are primarily undergraduate colleges with major emphasis on baccalaureate degree programs. They award 40 percent or more of their baccalaureate degrees in liberal arts fields and are restrictive in admissions.

Baccalaureate (Liberal Arts) Colleges II: These institutions are primarily undergraduate colleges with major emphasis on baccalaureate degree programs. They award less than 40 percent of their baccalaureate degrees in liberal arts fields or are less restrictive in admissions.

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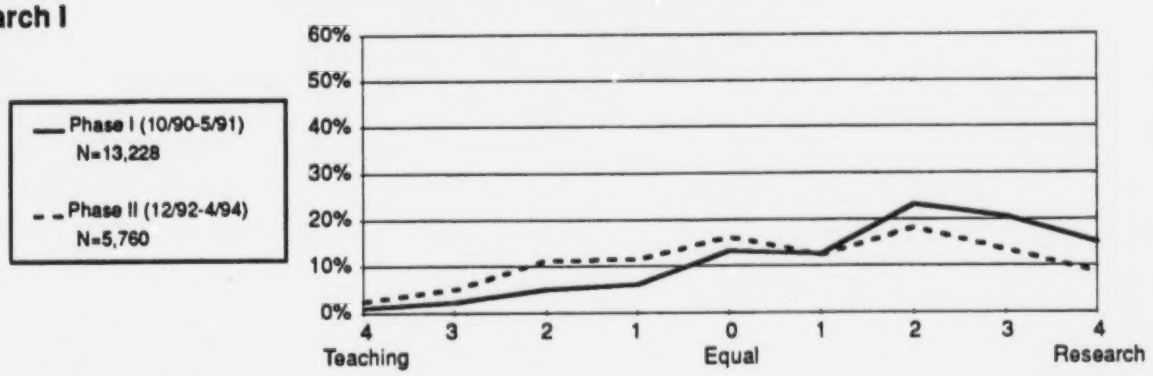
Figure 2A
The Direction the Institution *Is Going*
Phase I vs Phase II
Faculty by Carnegie Classification

Research I



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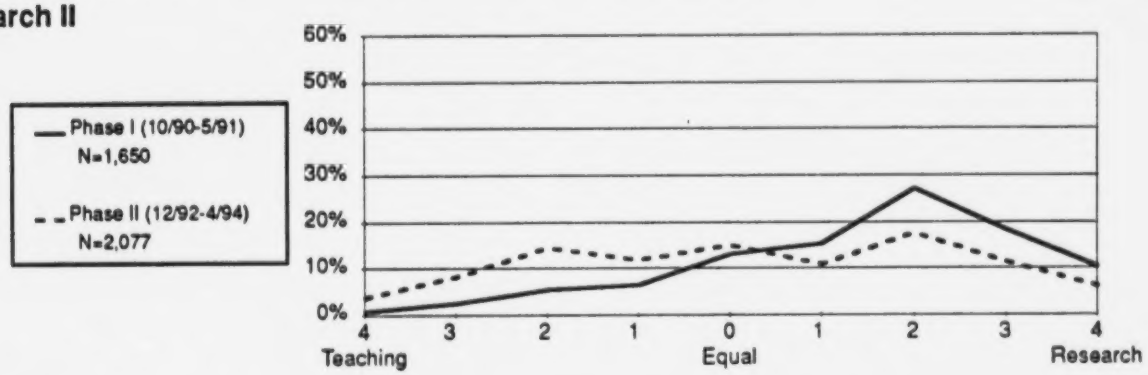
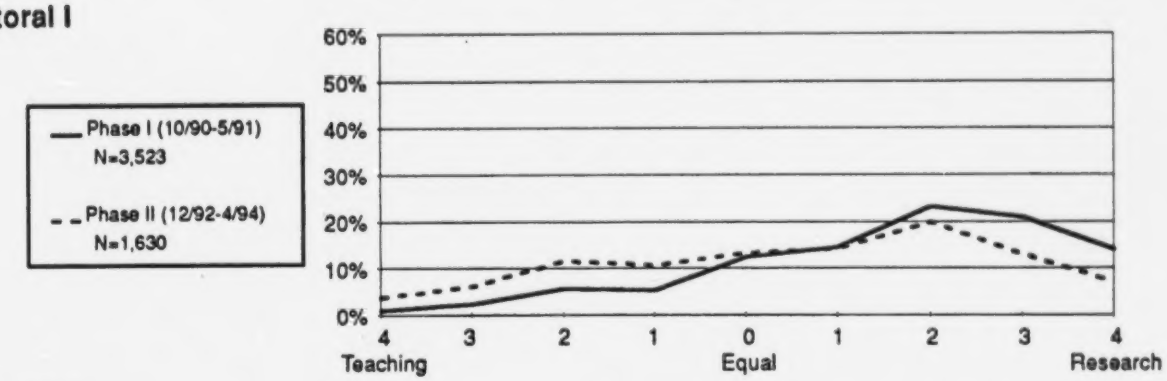


Doctoral I



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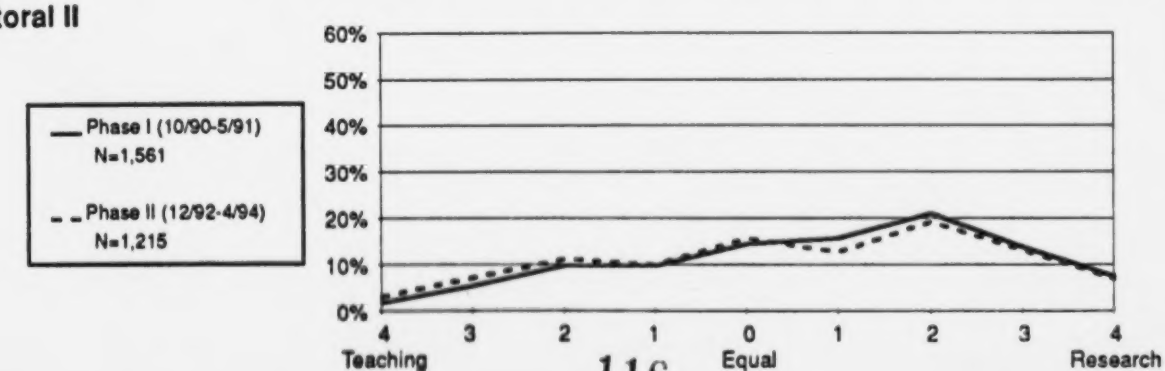
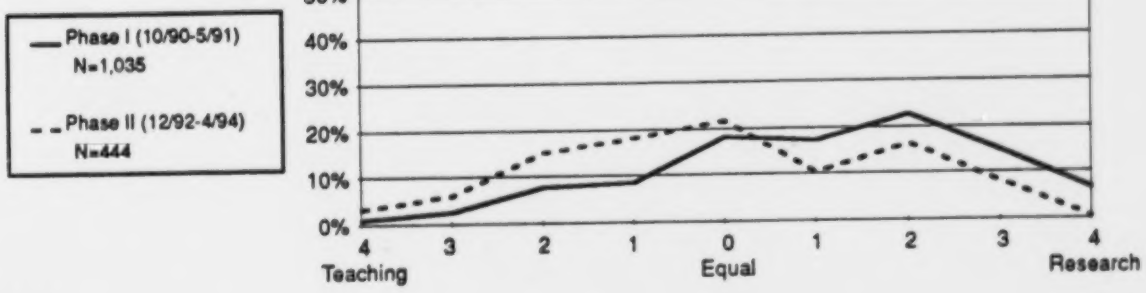


Figure 2B
The Direction the Institution *Is Going*
Phase I vs Phase II
Unit Heads by Carnegie Classification

Research I



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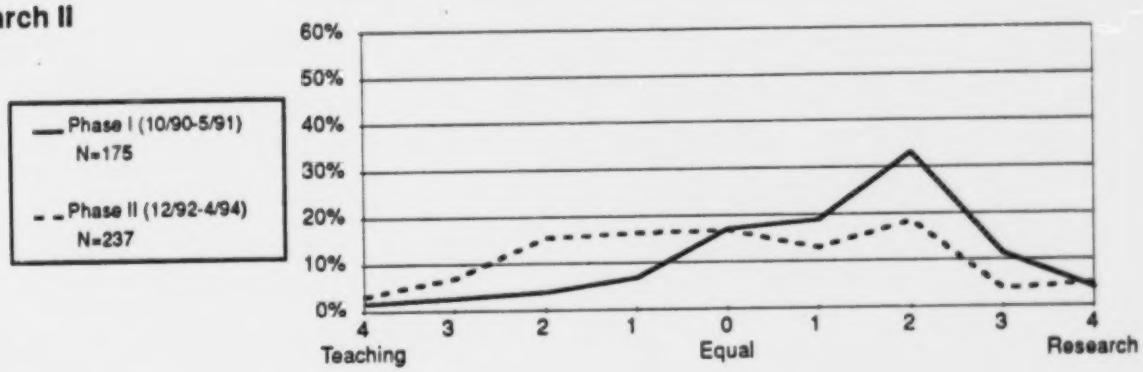

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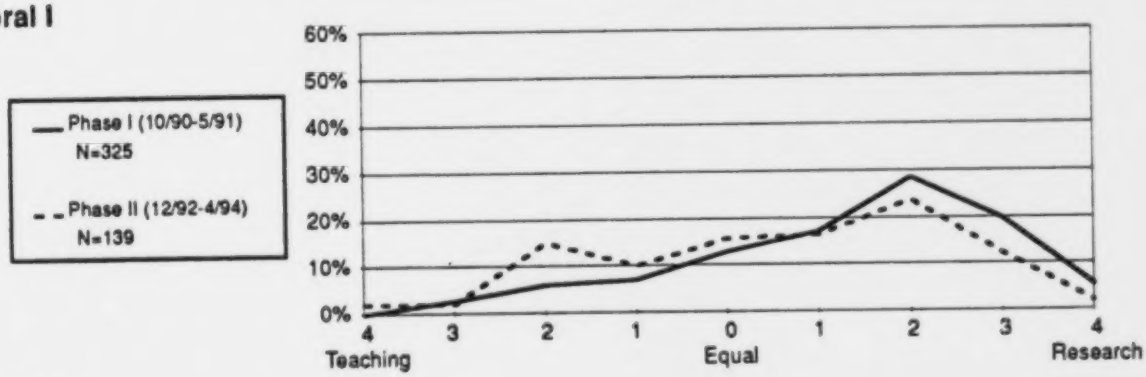

Doctoral II

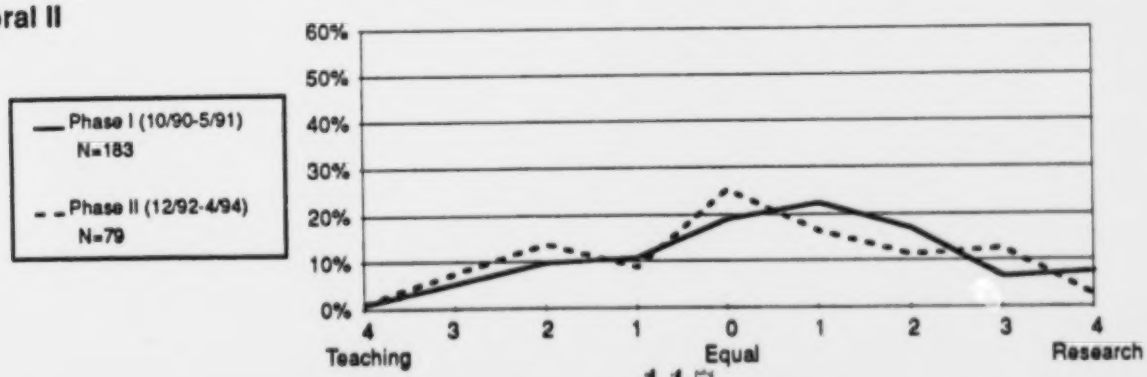

Figure 2C
The Direction the Institution *Is Going*
Phase I vs Phase II
Deans by Carnegie Classification

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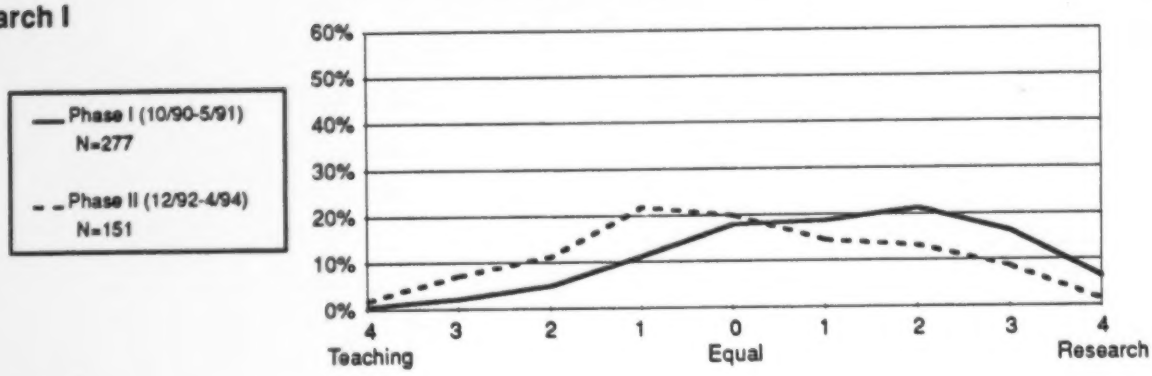

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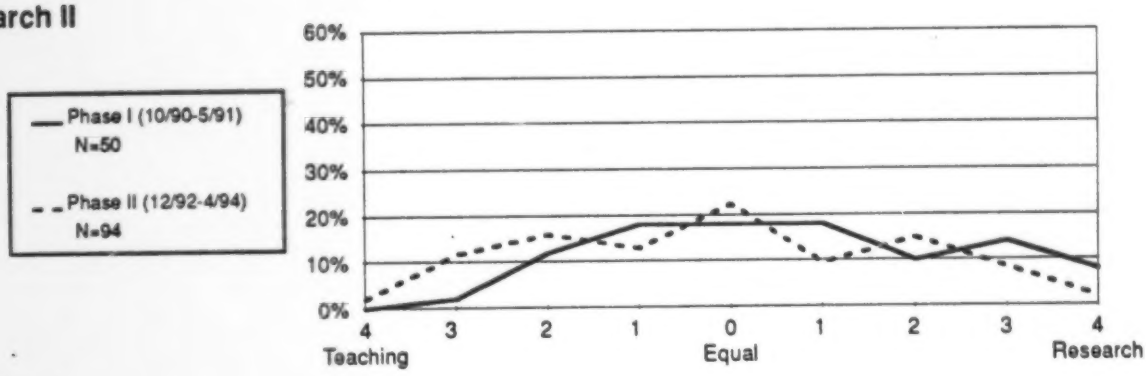

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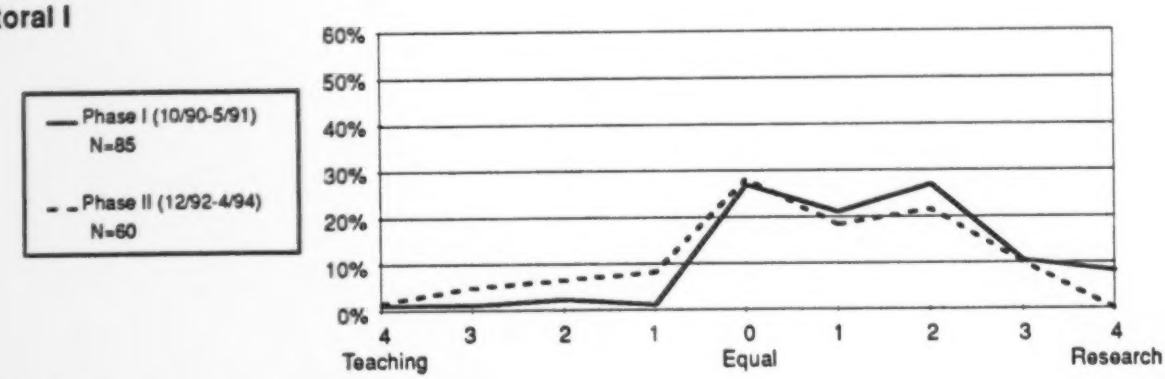

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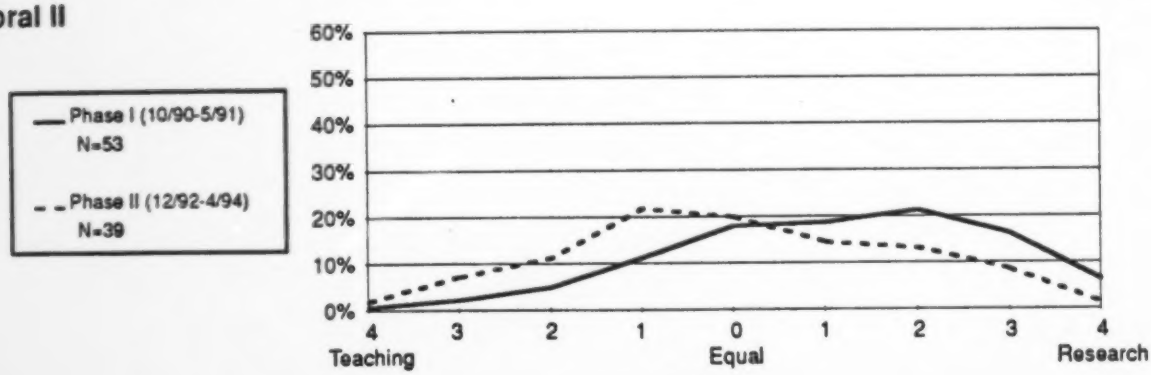

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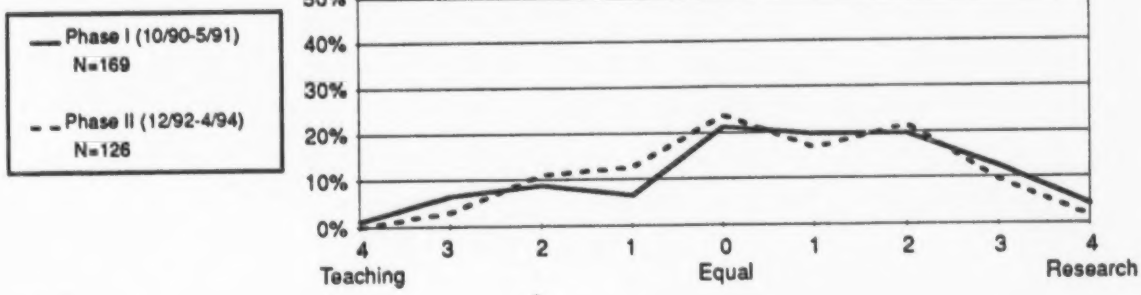
Figure 2D
The Direction the Institution *Is Going*
Phase I vs Phase II
Administrators by Carnegie Classification

Research I



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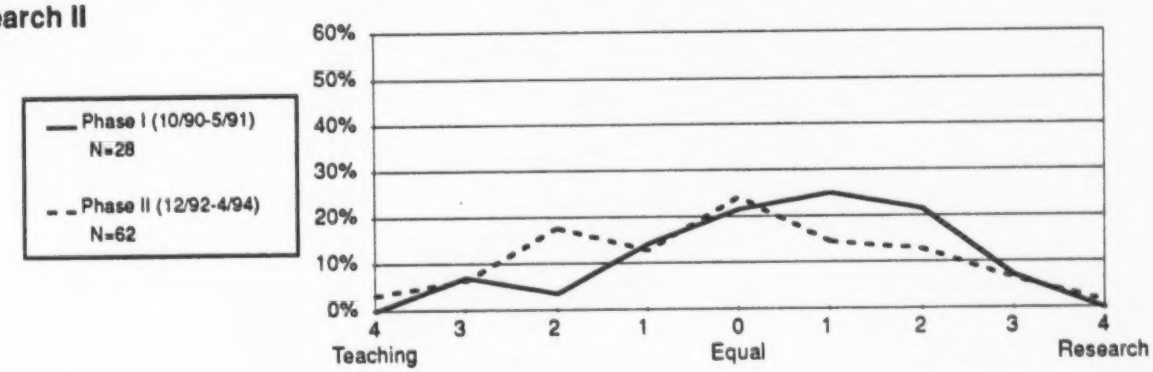

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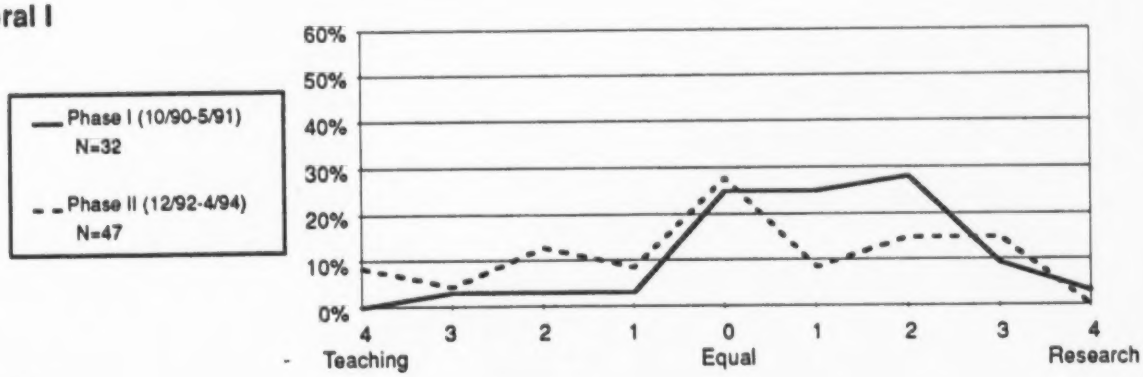

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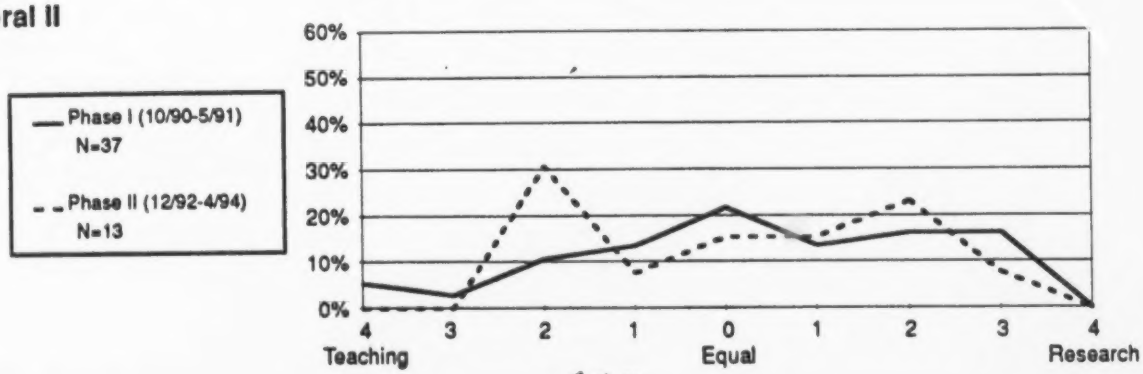


Figure 3A
Direction of the Institution
Faculty by Carnegie Classification

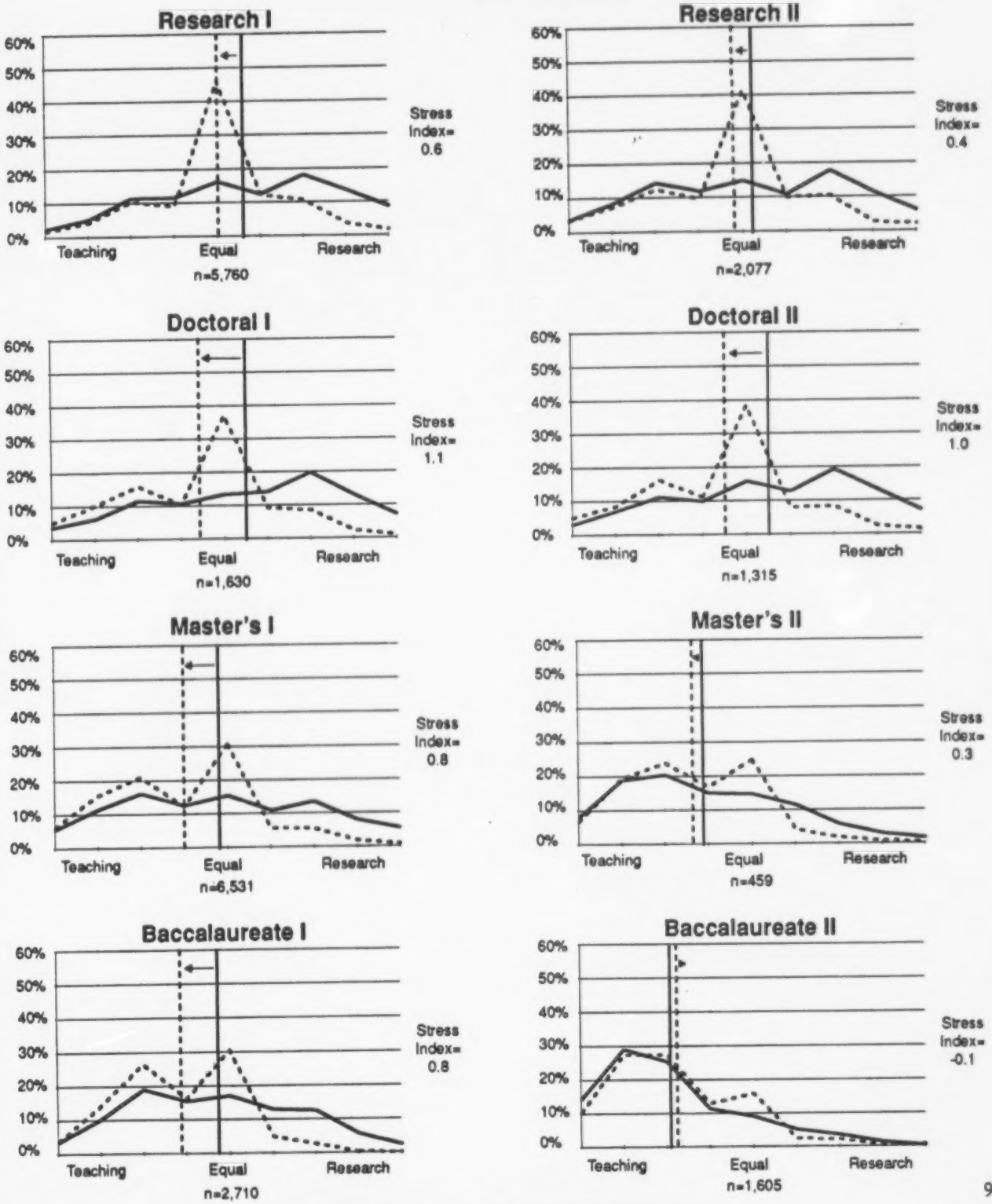


Figure 3B
Direction of the Institution
Unit Heads by Carnegie Classification

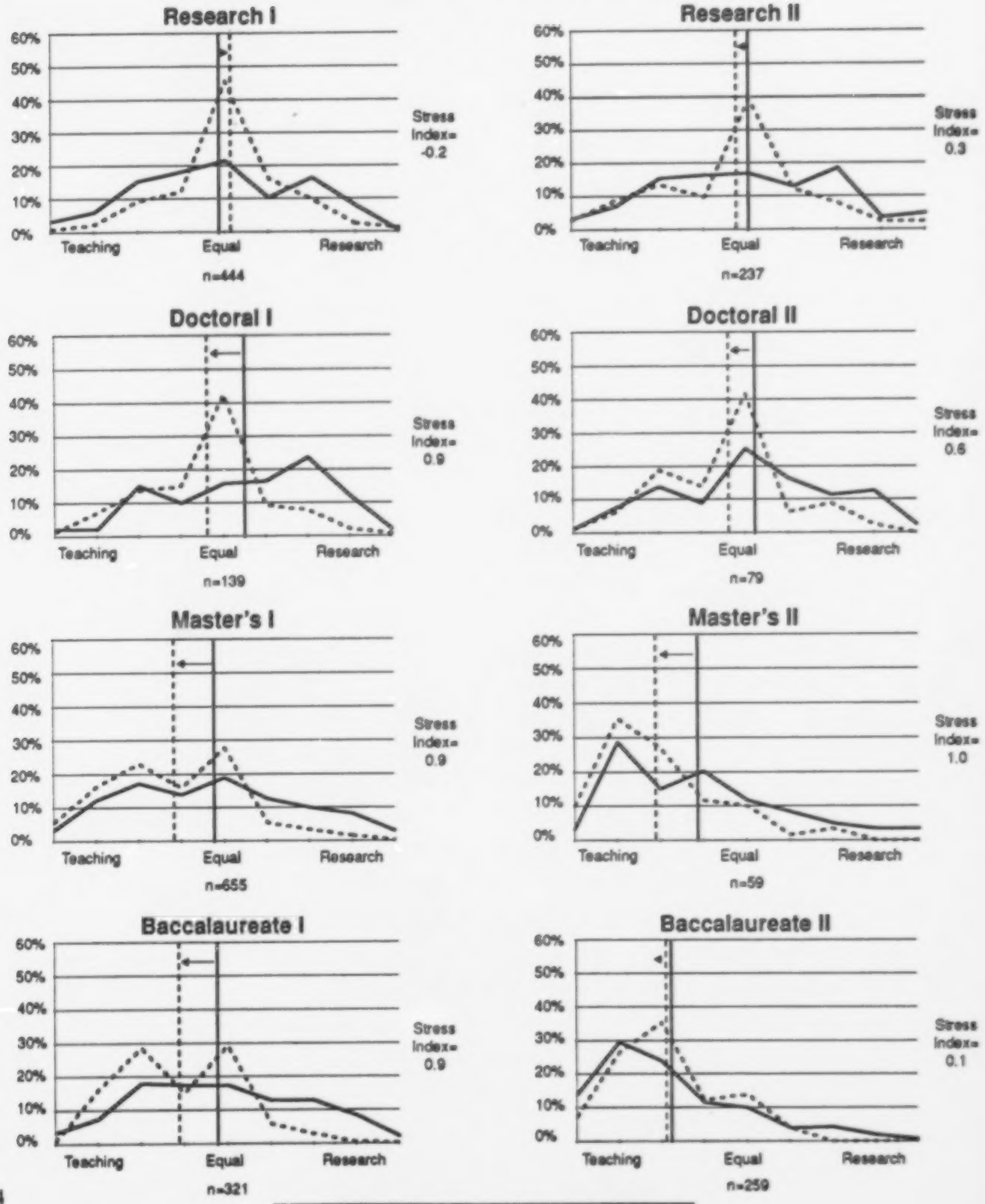


Figure 3C
Direction of the Institution
Deans by Carnegie Classification

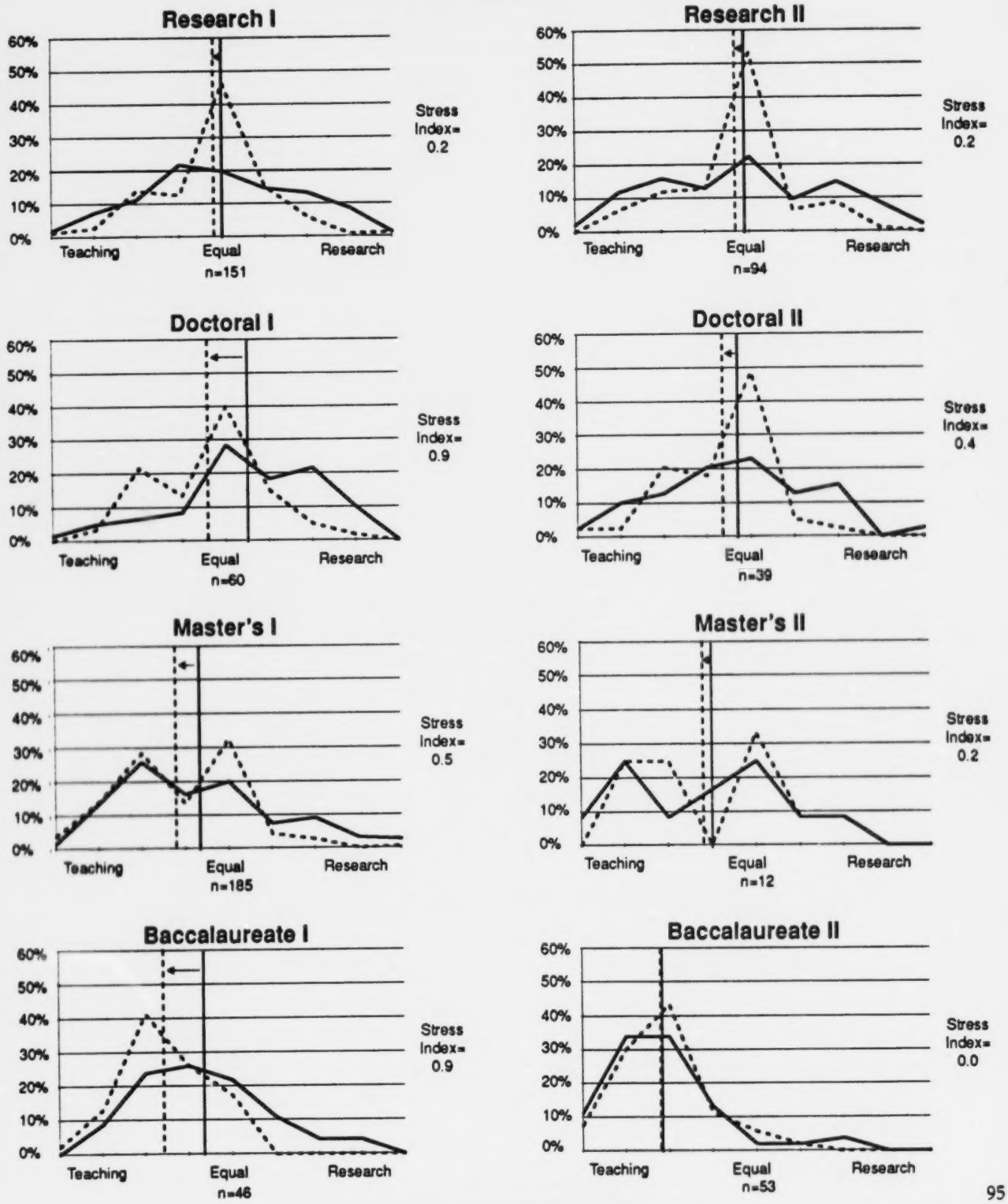


Figure 3D
Direction of the Institution
Administrators by Carnegie Classification

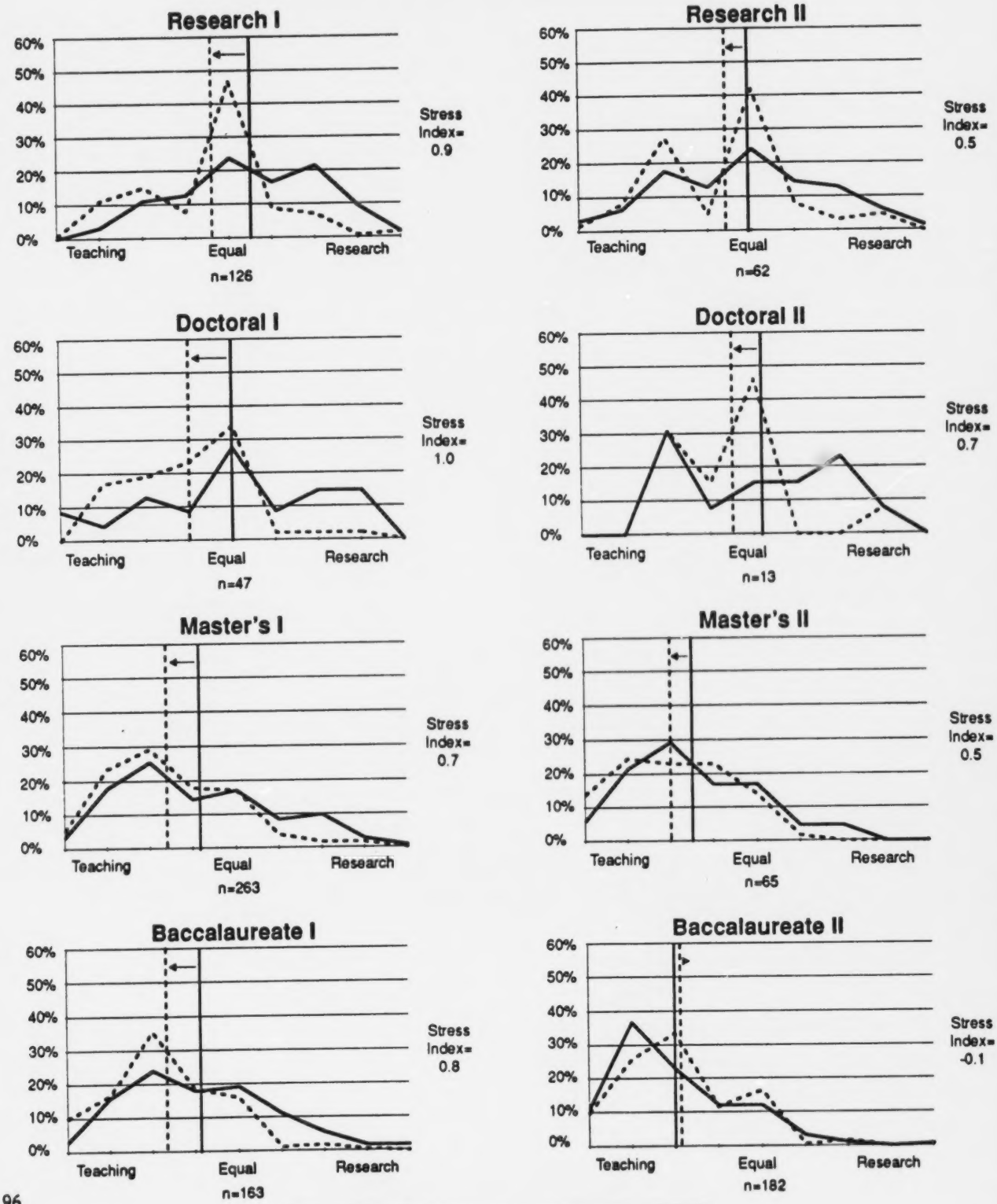
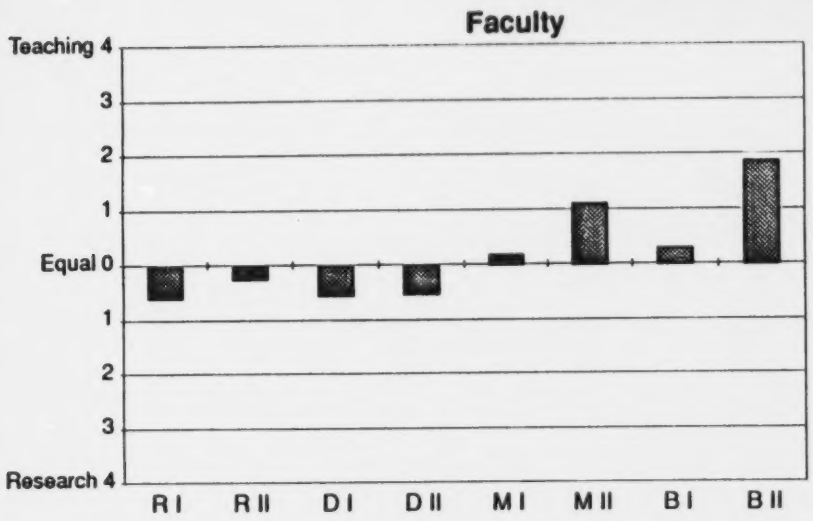
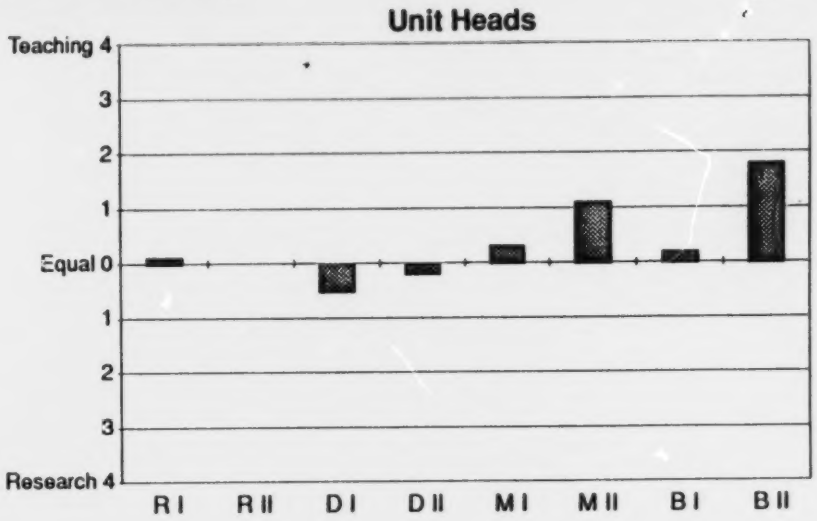
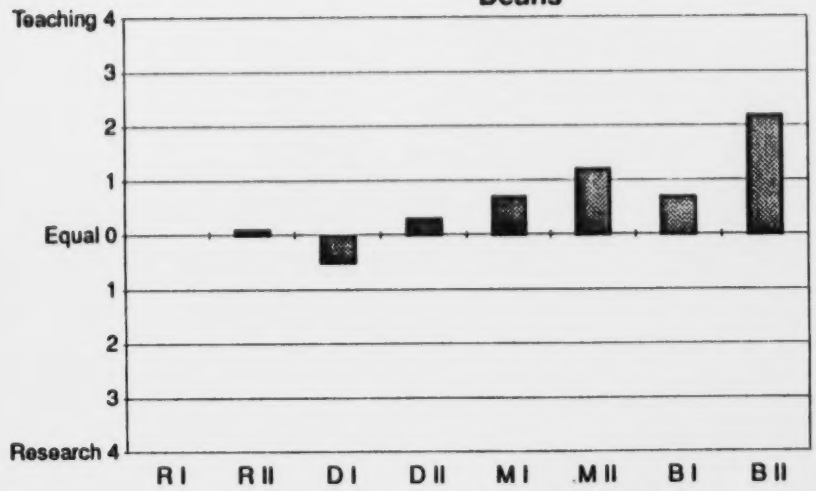


Figure 4

The Direction the Institution *Is Going*







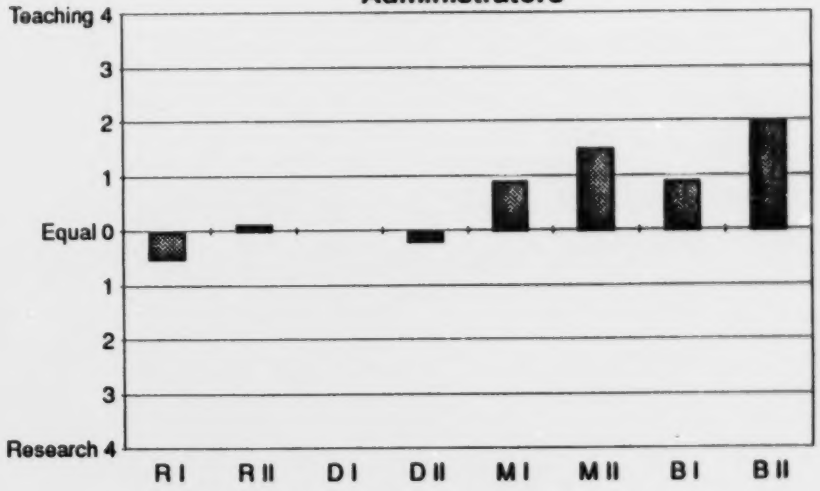
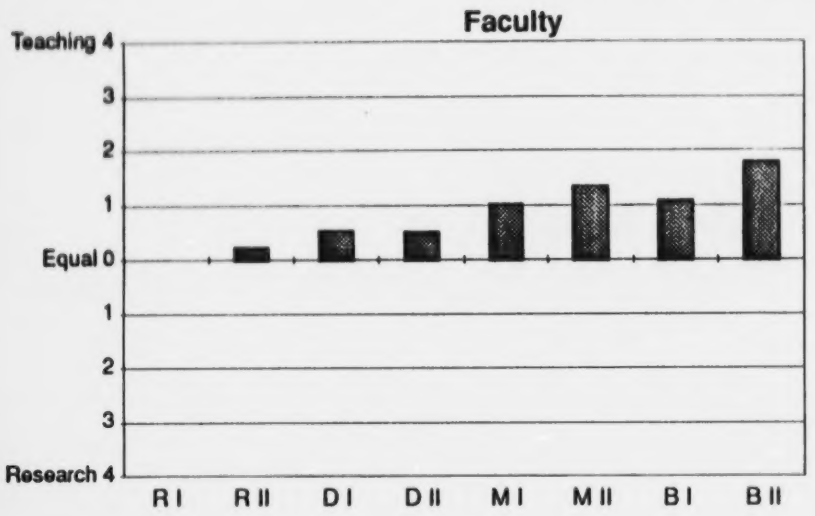
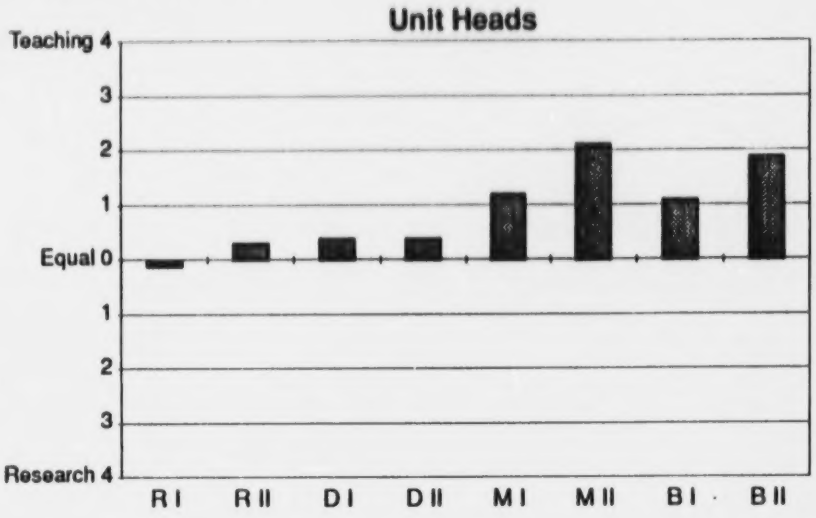
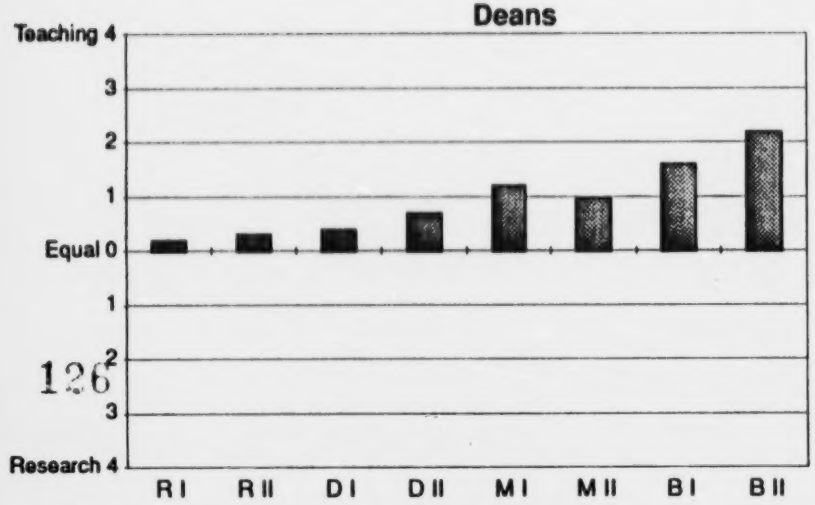


Figure 5
The Direction the Institution *Should Go*







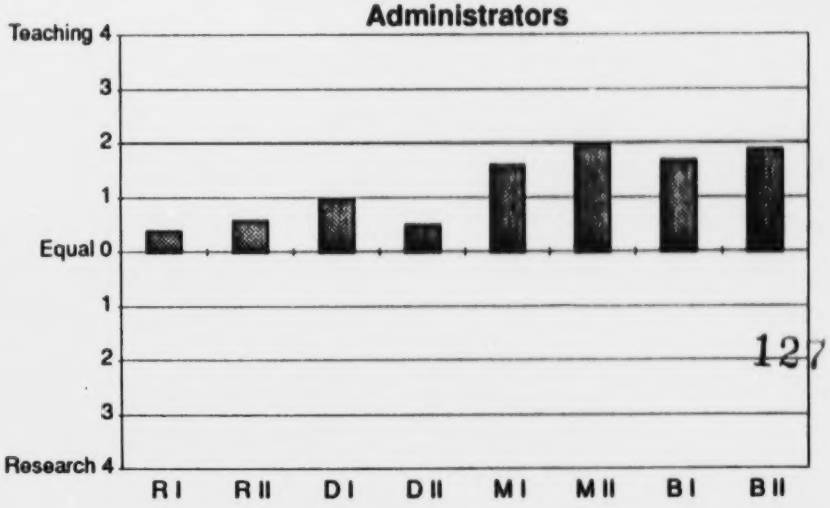
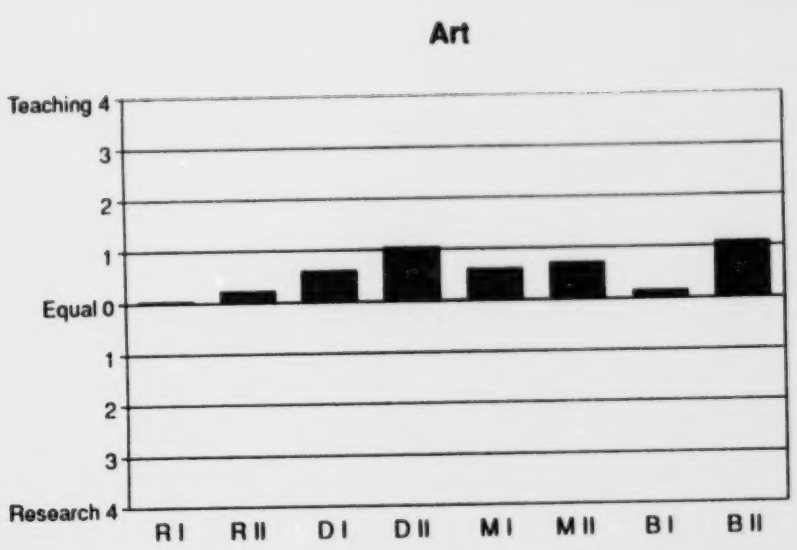
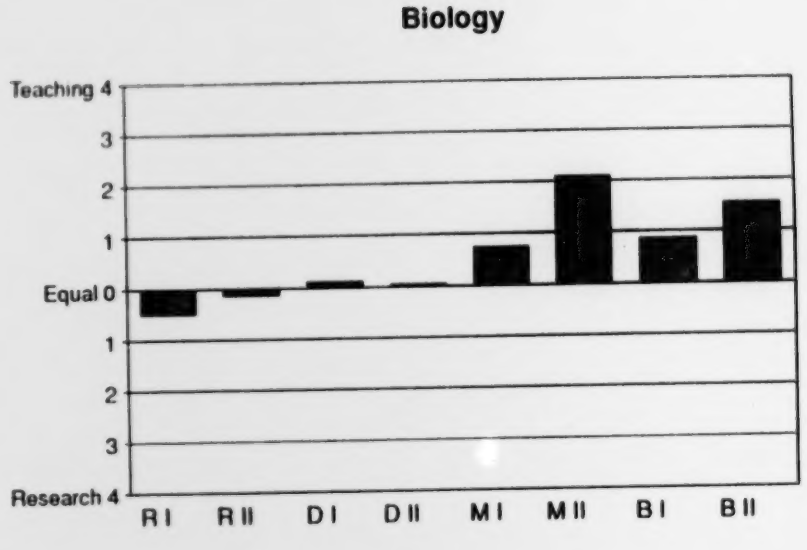
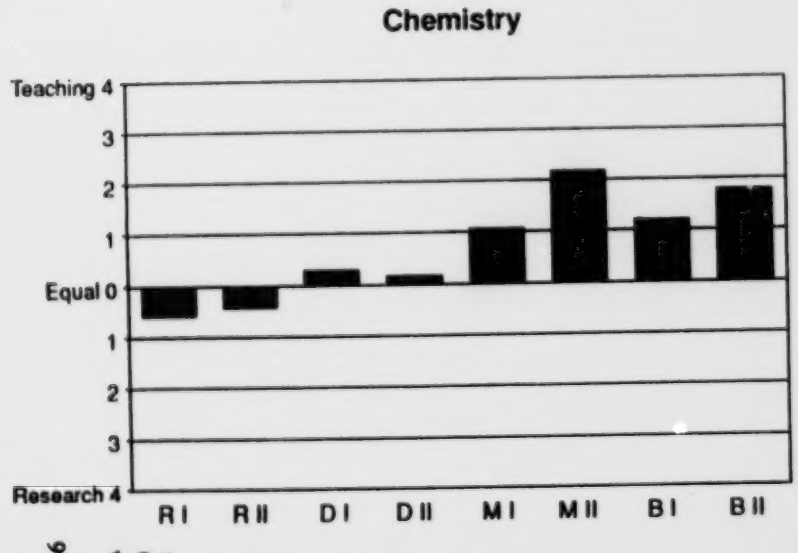


Figure 6A
Faculty *You Personally* Means by Carnegie Classification







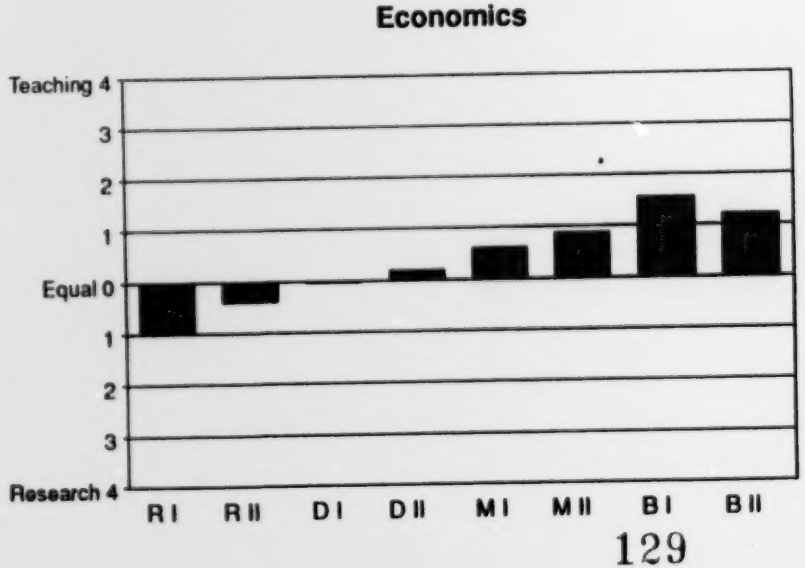
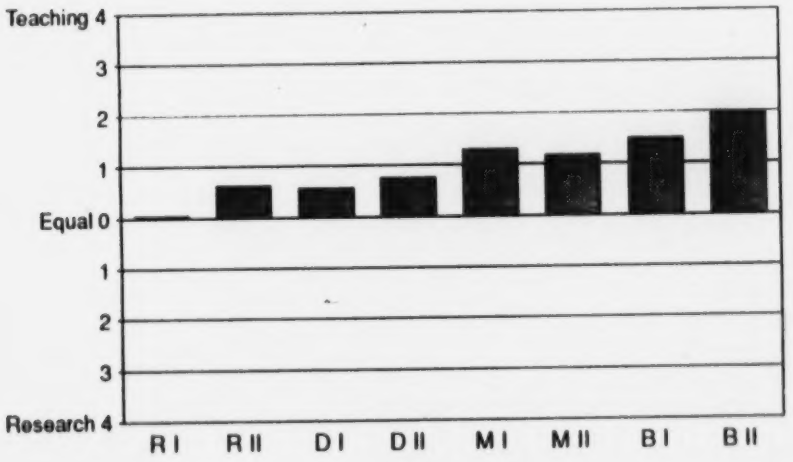


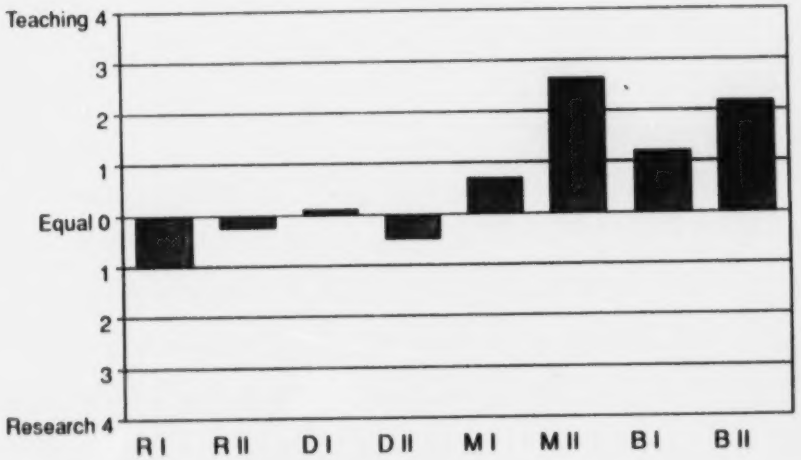
Figure 6B

Faculty *You Personally* Means by Carnegie Classification

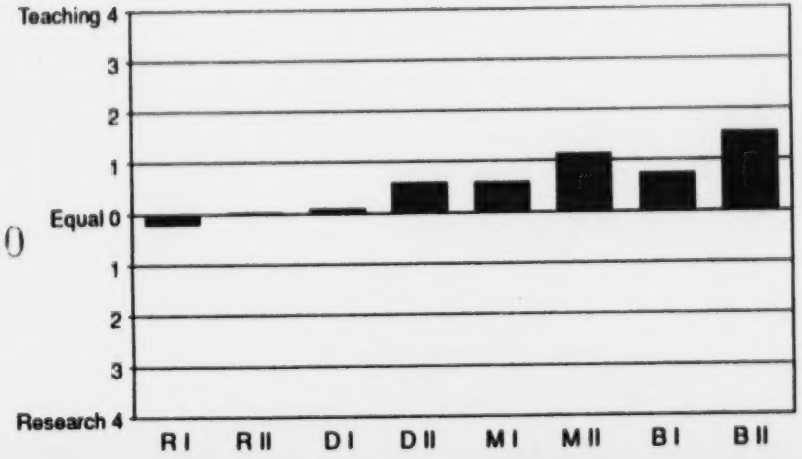
English/English Literature and Writing



Geology



History



Language

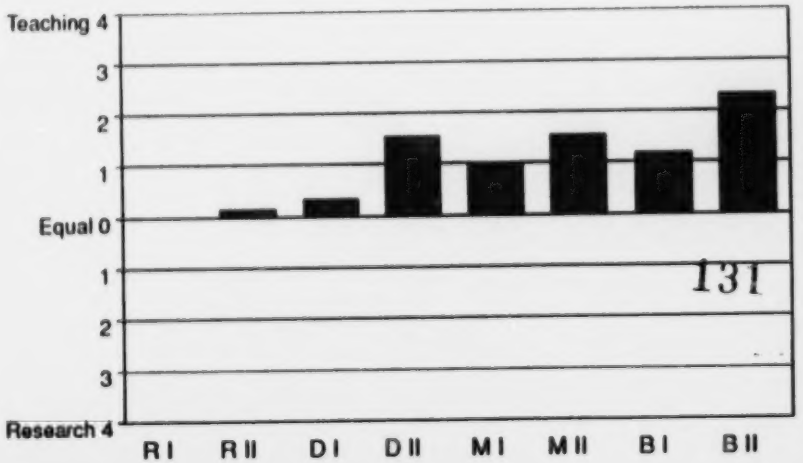
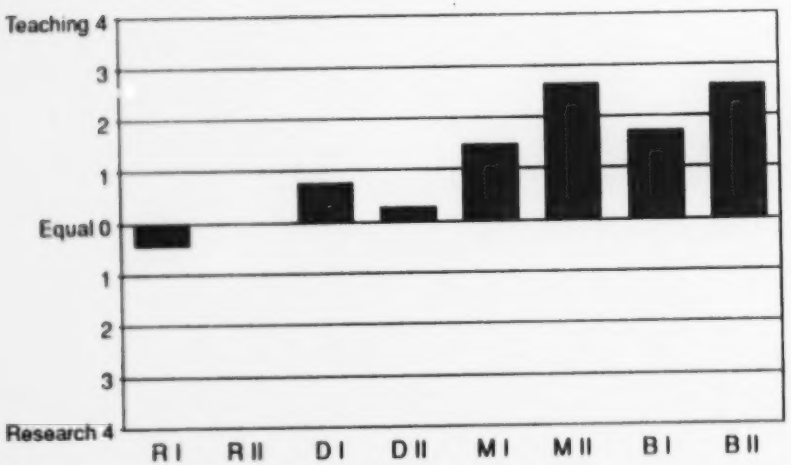


Figure 6C

Faculty *You Personally* Means by Carnegie Classification

Mathematics and Statistics



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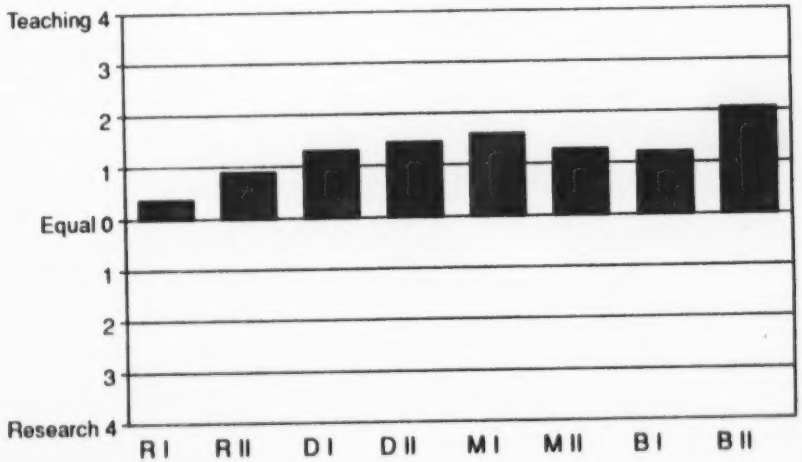
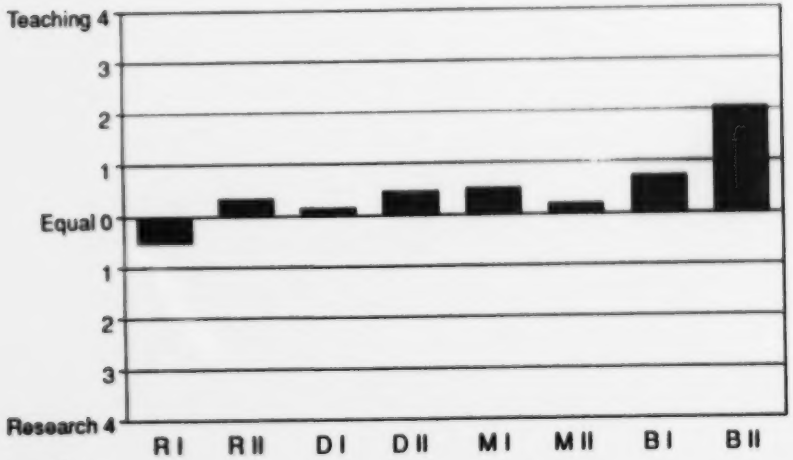


Philosophy



Physics

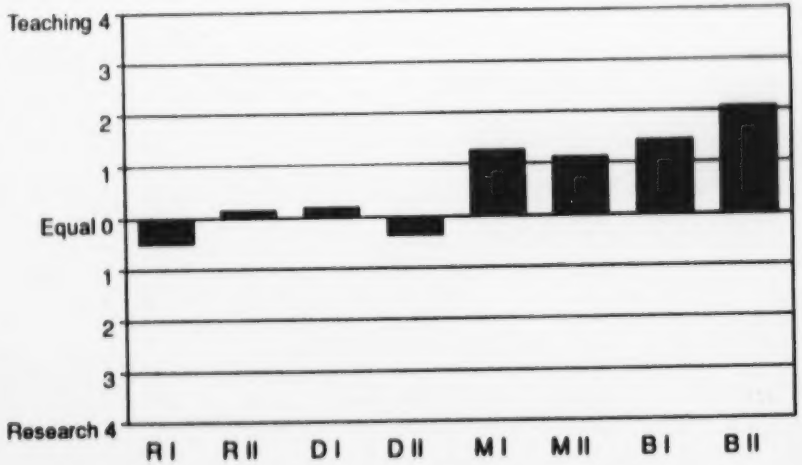
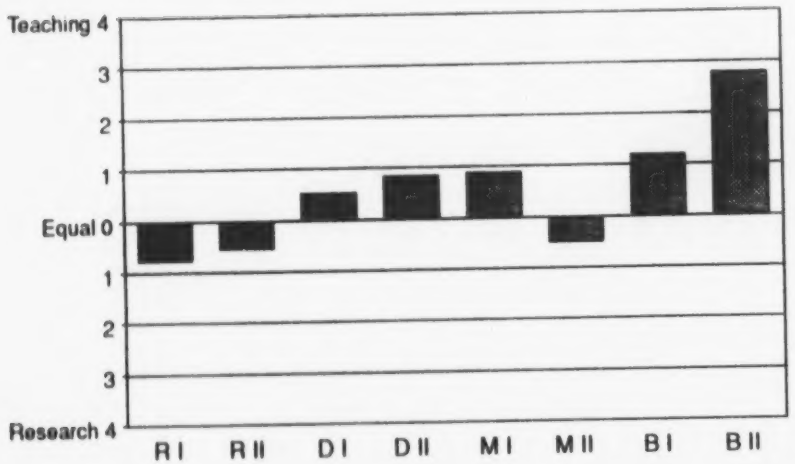


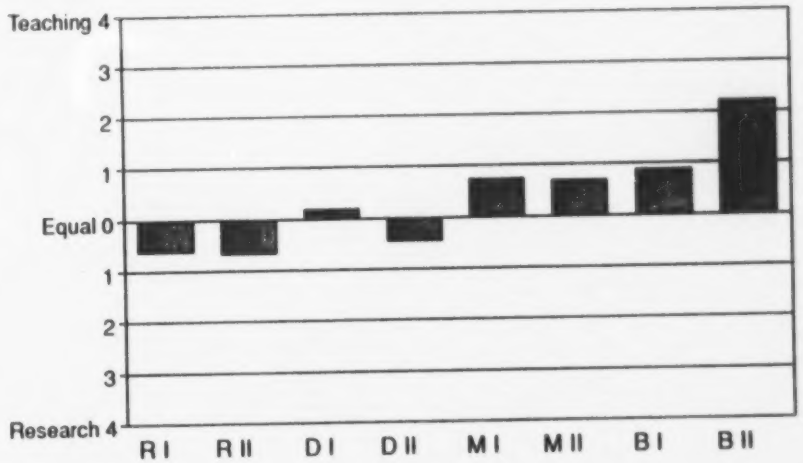
Figure 6D

Faculty *You Personally* Means by Carnegie Classification

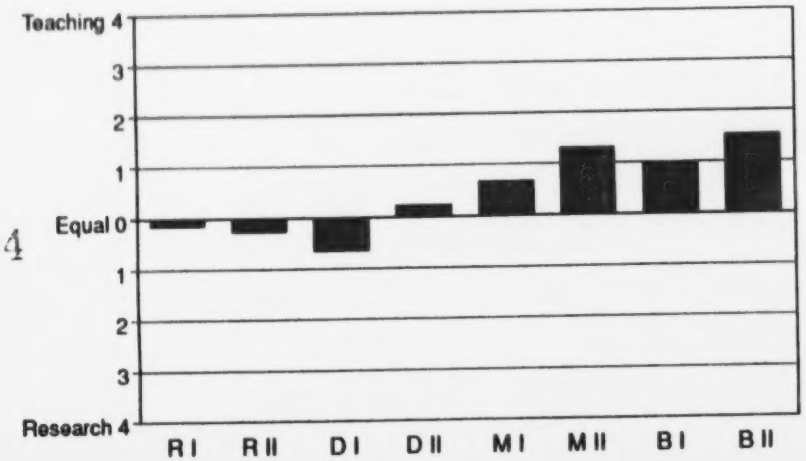
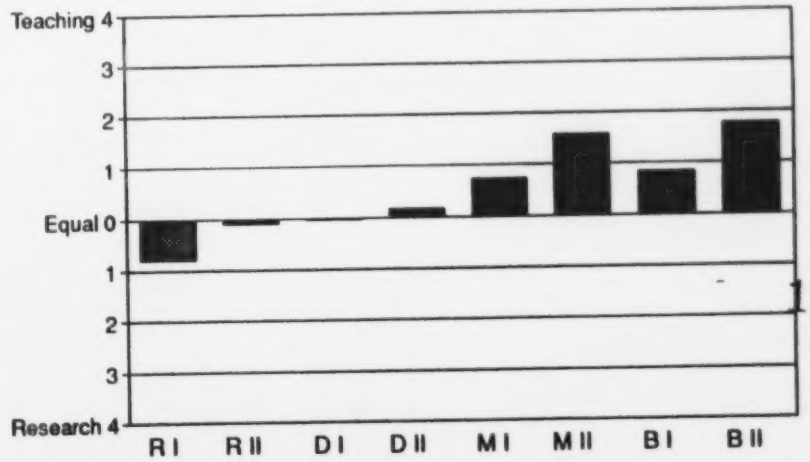
Political Science



Psychology



Religion



Sociology